THE BUILDER

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"ARCHITECTURE" and "THE BRITISH ARCHITECT"

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THIS WEEK'S NEWS

SPEAKING at Exeter on April 1, Mr. Dalton said that local authorities able to prove their house building to be efficient may be allowed to build more by cuts in allocations to "slow-coach" authorities. p. 475

A SELECTION of designs submitted in "The Builder" competition for a terrace house to cost not more than £1,000 will be on exhibition in Birmingham for a fortnight from Monday, April 9. p. 475

THE ROYAL GOLD MEDAL FOR ARCHITECTURE was presented to Mr. E. Vincent Harris, R.A., at the R.I.B.A., on Tuesday, April 3. p. 476

A SYSTEM of school construction using prefabricated timber units is illustrated and described on p. 477

SOME NOTES on the care of churches and their fittings are given in an illustrated pamphlet just issued by the Central Council for the Care of Churches. Extracts from this pamphlet are given on p. 491

"THE USE of the methods of operational research and of comparative surveys of practice in the factories of member firms offers research associations opportunities of considerable scope for promoting the well-being of the industry," states the annual report of the Department of Scientific and Industrial Research, recently issued. p. 493

"THE ABOLITION of price control will bring about a revival of competition in the timber trade," states a circular just issued by the Ministry of Local Government and Planning. It adds that at the tender stage for new contracts, builders should be required to state their basic prices for softwood for carcassing and joinery and to submit copies of quotations from a timber merchant accompanied by a statement that the merchant is prepared at the time of quotation to supply timber of stated quality, description and specification at the prices cited. p. 495

THE TWENTY-YEAR LIMIT in Development Plans was criticised by Mr. D. W. Plumstead, Town Planning Officer of Edinburgh, who pleaded for long-term planning, when he addressed the annual conference of the Scottish National Housing and Town Planning Council at Peebles. p. 500

CHURCH REPAIRS

HARDLY a week goes by without an appeal for funds being made in the columns of the national Press on behalf of some ancient church in urgent need of repair. The story is nearly always the same: accrued defects, due to the unavoidable neglect of the war years, now involving serious and expensive work beyond the financial resources of the local community. The cost of such work is now two or three times greater than it was before the war and unhappily still rising.

Serious as it is, there is no doubt that much could be done now and in the future to reduce it and keep it within reasonable bounds. The Central Council for the Care of Churches is very much alive to the possibilities, which are usefully summarised in a pamphlet, just issued, on "The Rural Dean's Visitation" (Church House, Westminster, S.W.1, price 6d.), giving notes for the guidance of the rural dean in the carrying out of his triennial inspection of the churches under his care. It is not suggested that the dean can supplant the architect, but it is held that by keeping a close eye on the condition of fabrics and indicating when and where skilled advice should be sought, he can help to save the parishes thousands of pounds of unnecessary major repair work. "If small repairs were dealt with directly they were required," it is stated, "the very big sums which most parishes have had to appeal for in order to carry out a large-scale restoration would not have been necessary."

Much of the advice in this guide, which is quoted in part elsewhere in this issue, relates to small matters, special emphasis being laid on drainage, precautions against damp, and on adequate ventilation. Neglect in these respects, it is pointed out, is the prime cause of most serious and costly decay—dry rot, beetle attacks, subsidence of foundations, crumbling of stone and plaster, cracks in masonry and the like. The pamphlet is a useful reminder, not only to rural deans but to incumbents, churchwardens and others, of the vulnerable points in the buildings under their care, and even architects and builders might get a helpful tip or two from it.

GOOD AND BAD

WHEN Mr. Frank Lloyd Wright was a very welcome guest among us recently he spoke his mind freely, as most of us hoped (and perhaps feared !) he would.

Reaction to his candid and stimulating *obiter dicta* no doubt varied with the listener or reader. It is conceivable that in some quarters Anglo-American relations received a distinct jolt when he dismissed St. Paul's with the magnificent polysyllable "Grandomania !" adding that if he wanted to see Renaissance architecture he would go to Rome. Owners of incredibly valuable bombed sites in the City of London, not to mention the rate-starved City Corporation, were probably a little perturbed by his remark that "The best gesture you can make to-day is to plant grass wherever a bomb fell."

But what perhaps shook most of us in our self-esteem was his unqualified statement that to-day "no one can tell a good building from a bad one." (It is difficult to believe that he included himself in this sweeping generalisation ; if he did, then the devotees of "Organic Architecture" must have received a rude shock.)

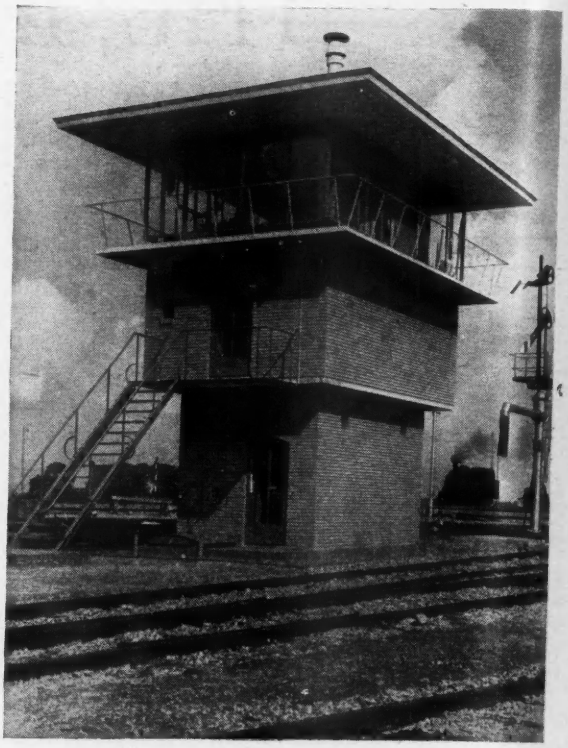
It is a pardonable human weakness to believe that about some things we "do know." Perhaps we have made a close study of architectural history, from primitive man to Moholy-Nagy (the obvious cynicism is ignored), and it comes as a shock to be

told that we cannot tell a good building from a bad one. Yet when allowance is made for rhetorical exaggeration there is a good deal of truth in the statement in relation to contemporary architecture. Looking back over the centuries, with the rise and decline of architectural styles spread out before us, it is comparatively easy to see at what point they reached their highest pitch of excellence. "That," we can say, and probably few will disagree with us, "was fine architecture." It is when a tradition has declined and we find ourselves in the throes of trying to build up a new one, perhaps with new or novel materials, to meet new needs and under exacting economic conditions, that the real difficulty of telling good from bad becomes apparent.

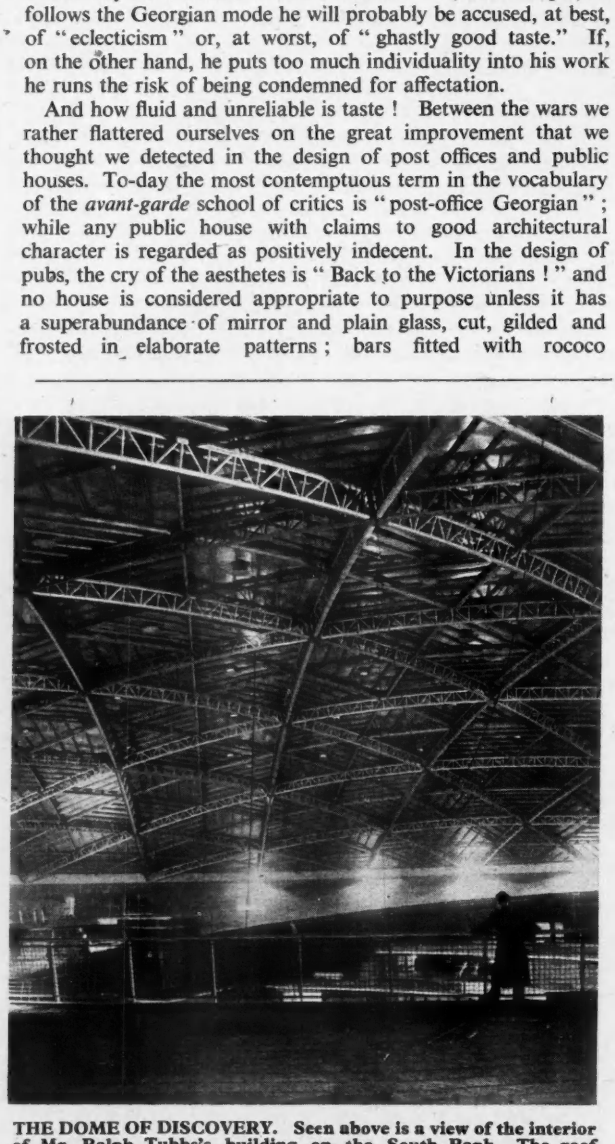
New materials will generally have their own characteristic expression, which will be found and perfected only by a long process of trial and error. Until that process is completed and we are able, so to speak, to stand away from it and examine it dispassionately, we are in no position to pass judgment on it fairly.

But traditional materials are by no means dead; indeed, they are very much alive, and the problem for the architect is whether he should use them in (*a*) familiar or (*b*) experimental ways. Either way he is bound to invite criticism. If, for example, he follows the Georgian mode he will probably be accused, at best, of "eclecticism" or, at worst, of "ghastly good taste." If, on the other hand, he puts too much individuality into his work he runs the risk of being condemned for affectation.

And how fluid and unreliable is taste! Between the wars we rather flattered ourselves on the great improvement that we thought we detected in the design of post offices and public houses. To-day the most contemptuous term in the vocabulary of the *avant-garde* school of critics is "post-office Georgian"; while any public house with claims to good architectural character is regarded as positively indecent. In the design of pubs, the cry of the aesthetes is "Back to the Victorians!" and no house is considered appropriate to purpose unless it has a superabundance of mirror and plain glass, cut, gilded and frosted in elaborate patterns; bars fitted with rococo mahogany screens with little pivoted windows through which one endeavours, generally unsuccessfully, to catch the attention of the barmaid; shelving of tortured mahogany; *decor* of empty beer barrels and bottles; and a boarded floor well sprinkled with sawdust and plentifully supplied with spittoons. Well may Mr. Frank Lloyd Wright tell us that nobody can tell a good building from a bad one!



SIGNALBOX, NETHERLANDS RAILWAYS. Architect: H. G. J. Schelling. This was one of the photographs on view at the recent Architecture of Transport Exhibition at the R.I.B.A.



THE DOME OF DISCOVERY. Seen above is a view of the interior of Mr. Ralph Tubbs's building on the South Bank. The roof members make an interesting pattern

When a tradition has been worked out there generally follows a transitional period, during which painful efforts are made to build up a new one. Through such a period are we going now. Even the progressives, as we see in the case of pubs., cannot resist an occasional longing, lingering look behind, particularly if they can find something offensive to imitate. But if architecture ought not to go back it will certainly not stand still. We may be sure that the present packing-case or horizontal sandwich phase of development is not the last word in modern architecture. The human spirit craves for some show of richness. Even the advanced school of architects in the United States are said to be wondering whether, in dropping all the non-essentials in their search for a contemporary idiom, they have not "thrown out the baby with the bath water."

Notwithstanding Mr. Wright's dictum there are perhaps a few who think they are able to tell a good building from a bad one, particularly in the case of work with a traditional basis. It is the "contemporary" or experimental work, where there are no standards to judge by, that sets the problem. When we have built up a new and acceptable tradition and all architects are good designers, there should be no problem of telling good from bad, for all will be good. But what will become of the aesthetes and the critics? As Gilbert put it:

Oh, don't the days seem lank and long
When all goes right and nothing goes wrong,
And isn't your life extremely flat
With nothing whatever to grumble at!

NOTES AND NEWS

"Festival Cleaning"

YOUR leading article under this heading (writes a correspondent) should make some of those who live in London reflect whether familiarity with the weathered effect of Portland stone has not dulled their appreciation of its strange beauty—a beauty that startles many who see it for the first time. That distinguished Londoner by adoption, Mr. James Bone, in his "London Perambulator" (which has lately been reissued) pays it a memorable tribute. Portland stone, he writes, is "a great and magical stone. . . . So when a young man comes to settle in London it seems a strange, uncanny place, and Wren's great cathedral and churches, and the long front of Chambers's Somerset House, and the many great buildings, excite him much and perplex him a little. It is usually after many years that he comes to understand why London looks so dramatic or—shall one say?—'theatrical.' He is aware of something against which his reason is fighting. It is the weathering of Portland stone; the appearance of great shadows where there can be no shadows, throwing blackness up and down, and wreathing towers with girdles of black, and cutting strange shapes on flat surfaces. Mystery hovers over the city, everything is slightly falsified, almost sinister; 'fair is foul and foul is fair'; there is magic about. Strangeness is allied to beauty and that is romance. That is the final secret of Portland stone." And that is what we shall wipe from the face of London if we continue to indulge our enthusiasm for "Festival Cleaning."

Impact of Defence Programme

ACCORDING to the Government's Economic Survey for 1951, published on Tuesday, supplies of building materials should be sufficient in 1951 to enable building output to go on rising at least as fast as in recent years, but the defence programme will have a considerable impact on the industry. Considerably less than half the expected increase in building output will be available for home investment.

There is a serious shortage of architects, quantity surveyors, draughtsmen and other works staff. Thus, defence building is likely to interfere with civil work by making claims on these particular skills.

The Festival Gardens

THE RESIGNATION of Sir Henry French, chairman, and Mr. Leonard Crainford, managing director (whose place is taken by Major L. Joseph, a member of the board), from Festival Gardens, Ltd., the company formed to run the Battersea Park pleasure gardens for the Festival of Britain, was announced in Parliament by Mr. Stokes, Minister of Works, on Tuesday. Afterwards Mr. Stokes visited the Battersea site, where he appealed to the 2,000 men on the day shift to make "a final spurt" to finish the work on time.

Building Research Congress

THE ORGANISING COMMITTEE of the Building Research Congress, to be held in London in September, is to consider closing the membership list for the Congress. More than 1,000 delegates have already accepted invitations to attend. They include the Directors of Building Research of ten Commonwealth and Continental countries and official representatives of many colonial and other countries.

Although the halls of the Institution of Civil Engineers, the Royal Institute of British Architects, the Institution of Structural Engineers, the Royal Institution of Chartered Surveyors, the Institution of Electrical Engineers and of the London County Council have been placed at the disposal of Congress members, the total accommodation is now barely sufficient to accommodate those who are expected to take part in the Congress.

Mr. Dalton on Housing

SPEAKING at Exeter on April 1, Mr. Dalton, Minister of Local Government and Planning, said that local authorities able to prove their house-building to be efficient may be allowed to build more by cuts in allocations to "slowcoach" authorities. If the Ministry found that some authorities could not build up to their allocation or anywhere near it—and there were such authorities — they would say "All right, we will switch over some of the allocation from the slowcoach to the quickcoach." When any local authority showed signs of being able to build more than the number of houses allocated by the Ministry, he was prepared to consider letting them build more.

The Repair of Old Buildings

THE SOCIETY for the Protection of Ancient Buildings is frequently asked whether facilities are available for the young practising architect and for the staff of local authorities who are responsible for old buildings, to obtain knowledge of the Society's principles and methods of repair. To meet this demand the Society is arranging a week's course consisting of lectures, discussions and visits to cover the many important aspects of repair work.

At the present time, when so much overdue repair work is waiting to be done, it is apparent that there will be no lack of work of this character for many years. In the Society's view it is, therefore, essential that more architects should possess an acquaintance not only with the constructional methods of the past, but with the principles underlying the sympathetic and conservative treatment of old buildings. It is particularly hoped that it will be found possible for local authorities and others to give facilities to architect members of their staff to take advantage of this scheme. It is proposed to hold the course from April 30 to May 5.

The Society invites those who are interested to apply to the Secretary for further details, at 55, Great Ormond-street, W.C.1.

LOW-COST HOUSING

"The Builder" Competition Designs at Birmingham

A SELECTION of designs submitted in "The Builder" competition for a terrace house to cost not more than £1,000 will be on exhibition at Messrs. Lewis's Store, 32, Bull-street, Birmingham, from Monday next, April 9, for a fortnight.

The exhibition, which will include models of the designs placed first, second and third, will be opened at 12 noon by Major G. B. Cox, F.R.I.B.A., president of the Birmingham and Five Counties Architectural Association. Mr. Herbert J. Manzoni, C.B.E., M.Inst.C.E., City Engineer and Surveyor, Birmingham, will propose a vote of thanks to Major Cox.

Irish Architect for French Theatre

MR. MICHAEL SCOTT, the Dublin architect, who has been commissioned by a well-known French theatre company as consulting architect for a new theatre, has already begun work on the project. Mr. Scott has not yet disclosed the name of the town where the new theatre is being built.

Visit to Harold Hill Estate

A TOUR of the Harold Hill L.C.C. estate has been arranged by the Housing Centre and will take place in the afternoon of April 18. Visitors will be conducted round the estate by a L.C.C. representative. Anyone wishing to join the party should get in touch with the Centre.

Ancient Burial Mound Destroyed

A FARMER in the West of England recently rendered himself liable to prosecution by destroying a barrow (prehistoric burial mound) scheduled by the Ministry of Works as an ancient monument. Wishing to cultivate an unused field, the farmer employed a contractor with a bulldozer to level it. The "tumps" in the field included a barrow which was bulldozed flat, its chamber was destroyed, the bones it had concealed for thirty centuries or more being irreplaceably strewn over a circle 18 yards in diameter.

The Ministry of Works point out that our knowledge of the life and customs of the Bronze Age (about 1900—600 B.C.) is derived almost entirely from tombs of the period. Though there are thousands of barrows scattered over England, Scotland and Wales, of a dozen or so varieties as regards shape and external appearance, no two are alike internally. Thus the destruction of any one barrow, before an expert record of its contents can be made, means an archæological and historical loss to the nation.

By bulldozing an ancient burial mound which had been scheduled by the Ministry of Works for preservation in the national interest, the West Country farmer risked a fine of £100 or three months imprisonment under the Ancient Monuments Act of 1931.

Some barrows are long and cover communal tombs of the New Stone Age (about 2000 B.C.), but the majority, nearly all belonging to the Bronze Age and frequently found on high ground, are round. They are usually between 30 ft. and 90 ft. in diameter, and seldom more than 6 ft. high, though they may be as low as 2 ft. They contain tombs, often cists or settings of stone like large boxes, but in some examples even this amount of structure may be lacking.

Farmers and other owners of land should pay special attention to the risk of destroying these monuments when ploughing marginal land. Records of scheduled monuments appear in the Local Land Charges Register, which should be searched as a routine step when land is purchased.

New Zealand Government Architect

APPLICATIONS are invited for the position of Deputy Government Architect at a salary up to at least £1,650 N.Z. per annum. Application forms from the High Commissioner for New Zealand, 415, Strand, W.C.2, to be lodged not later than April 22. Details advertised elsewhere in this issue.

Oudoor Advertising Decision

MR. HUGH DALTON, Minister of Local Government and Planning, has informed the Gloucestershire County Council that he intends to make the Cotswold and Wye Valley districts, with certain exceptions, an area of special control in the matter of outdoor advertisements.

This decision gives effect to proposals, put forward at a public inquiry at Gloucester on January 16, which were the outcome of an agreement between the Gloucestershire County Council and the Outdoor Advertising Industry Advisory Committee.

British Sculptors

AT THE ANNUAL MEETING of the Royal Society of British Sculptors, held on March 28, Mr. Wm. C. H. King was re-elected President for the ensuing year. The following were elected to Fellowship of the Society: Miss Charlotte Gibson, G. E. Campbell, Denis C. Dunlop, Alan Durst and Bennett Ingram.

New Associates elected were Miss Ruth Windmiller, Douglas R. Bisset, Allan G. King, C. d'O. Pilkington Jackson, S. Birnie Stewart, Albert Willetts.

The Best Work of the Year Medal (for 1950) (in Gold) was presented to Mr. Wm. McMillan, R.A., F.R.B.S.

L.M.B.A. Technical Adviser

WHAT the ordinary builder wanted was not research but the result of research, declared Mr. Dudley Cox, president of the L.M.B.A., when he introduced Mr. E. G. Dean, the recently appointed technical adviser to the L.M.B.A., to members of the technical Press on March 30.

Mr. Dean can be located at the Ministry of Works, Lambeth Bridge House, S.E.1, where he is available to answer any queries from members of the L.M.B.A., on subjects connected with the building industry. These queries can be made either by telephone, letter or personal interview. Mr. Dean's present duties at the Ministry of Works are concerned with the collection, examination and dissemination of the results of research and development in the field of building.

T.P.I. Summer School

MR. HUGH DALTON, Minister of Local Government and Planning, is expected to give the opening address at the Town Planning Institute's Summer School which is to take place at Oxford from September 17 to 22. The main papers provisionally selected are entitled "The Replanning of Cities," "A Critical Analysis of the Working of the 1947 Act," "Public Relations," and "Trends in British Social Life." Applications to attend the Summer School must reach the T.P.I. by May 22.

Newcastle Hospital Project

NEWCASTLE-UPON-TYNE Regional Hospital Board invite applications by April 27 from architects interested in the project of planning the comprehensive development of the Queen Elizabeth and Sheriff Hill Hospitals. Details advertised elsewhere in this issue.

Glenrothes Appointment Open

GLENROTHES DEVELOPMENT CORPORATION invite applications, by April 13, for the post of Deputy Chief Architect and Planning Officer from architects under 45 years of age. Salary £1,000 × £50—£1,150, according to experience. Details advertised elsewhere in this issue.

Professional Announcements

MESSRS. CULPIN AND SON, chartered architects and planning consultants, of 3, Southampton-place, W.C.1, inform us that they have changed the style of their firm to Clifford Culpin and Partner. The partners will remain as at present, Mr. Clifford E. Culpin, F.R.I.B.A., and Mr. W. W. Ryder, A.R.I.B.A.

MR. DEREK H. HOLMES, F.I.A.S., corporate quantity surveyor, announces that he has moved his Cheltenham office to 6, Imperial-square. The telephone number remains unaltered (Cheltenham 53509).

COMING EVENTS

Monday, April 9

"THE BUILDER."—Opening by Major G. B. Cox, F.R.I.B.A., of an exhibition of designs submitted in *The Builder* Low-Cost Housing Competition. Messrs. Lewis's store, 32, Bull-street, Birmingham. 12 noon. Continuing until April 21.

R.I.C.S.—"Some Legal Responsibilities of a Surveyor," by Mr. Stuart Daniel, Barrister-at-Law. 12, Great George-street, S.W.1. 6 p.m.

Tuesday, April 10

ARCHITECTURAL SCIENCE BOARD.—"Some Technical Problems Arising in the Building of a New Town," by Mr. G. Grenfell Baines, A.R.I.B.A., A.M.T.P.I. 66, Portland-place, W.1. 6 p.m.

L.M.B.A. (CENTRAL AREA No. 3).—Luncheon. Armourers' City Hall, 81, Coleman-street, E.C.2. 1.15 p.m.

INSTITUTION OF SANITARY ENGINEERS.—"Sanitation in Multi-Storey Buildings," Mr. H. E. Gooding, M.B.E. Caxton Hall, Westminster. 6 p.m.

HOUSING CENTRE TRUST.—"Delinquency and Housing Conditions," by Miss M. M. H. Smith. 13, Suffolk-street, Haymarket, S.W.1. 1.15 p.m.

Wednesday, April 11

VICTORIA AND ALBERT MUSEUM.—"Some Aspects of Italian Sculpture," by Mr. John Pope-Hennessy. V. and A. Museum, South Kensington, S.W.7. 6.15 p.m.

L.M.B.A. (CENTRAL AREA No. 1).—Luncheon followed by a talk on "Employers' Liability to Workmen," by Mr. R. G. Thomson, A.C.I.I., secretary, Builders' Accident Insurance, Ltd. Derry and Tom's Restaurant, Kensington High-street, W.8. 1 p.m.

Thursday, April 12

A.A.—Annual reception. 34, Bedford-square, W.C.1. 8.30 p.m.

INSTITUTION OF ELECTRICAL ENGINEERS.—"Modern Developments in Electric Welding," by Dr. H. G. Taylor. I.E.E., Savoy-place, W.C.2. 5.30 p.m.

ILLUMINATING ENGINEERING SOCIETY (MANCHESTER CENTRE).—A.G.M. and paper on "Home Lighting," by Mr. J. N. Aldington. College of Technology, Sackville-street, Manchester, 1. 6 p.m.

BUILDING ALLIANCE GOLFING SOCIETY.—Match against the Plastic Industries Golfing Society. St. George's Hill, Weybridge.

Friday, April 13

R.I.B.A.—A Discussion Meeting and Exhibition on the Housing needs of Old People. 66, Portland-place, W.1. 2.30 p.m. The Exhibition will remain open until April 28. Weekdays, 10 a.m.–7 p.m. (Saturdays, 10 a.m.–5 p.m.)

ROYAL INSTITUTION OF GREAT BRITAIN.—"British Comic Art," by Mr. Osbert Lancaster. 21, Albemarle-street, W.1. 9 p.m.

FROM "THE BUILDER" OF 1851

Saturday, April 5, 1851

THE NATIONAL GALLERY.—A proposal, it may be recollected, to transfer the national paintings from the Trafalgar-square Gallery to Kensington Palace, was discussed in *The Builder* some time since. It is now reported that this suggestion is to be carried out by the Government who are said to have at last become convinced of the necessity of removing them from their present position. If such really be the case, the change will doubtless be carried out forthwith, as Kensington Palace, from the first of next month onwards at least throughout the present year, will be one of the most central positions possible for a popular exhibition to strangers of our national pictures, notwithstanding its suburban locality. The Vernon collection, we presume, would also be removed from Marlborough-house and reunited with the older section at Kensington Palace, otherwise it would scarcely be worth while carrying out such a project.

THE ROYAL GOLD MEDAL

Presentation to Mr. E. Vincent Harris, O.B.E., R.A., F.R.I.B.A.

MR. E. VINCENT HARRIS, O.B.E., R.A., F.R.I.B.A., received the Royal Gold Medal for Architecture from Mr. Graham Henderson, president, at a meeting of the R.I.B.A. on Tuesday evening (April 3). Mr. Harris was escorted to the platform by Sir Percy Thomas and Mr. Edward Maufe, two past Royal Gold Medalists.

Following a brief introductory speech by MR. HENDERSON and some remarks by SIR GERALD KELLY, president of the Royal Academy, on Mr. Harris's qualities as an individual and his abilities as an architect and treasurer of the R.A., DR. JOHN MURRAY spoke of his association with Mr. Harris over the past 25 years. As Principal of the University College of the South West of England, Dr. Murray referred to the admirable way in which Mr. Harris had overcome many architectural problems in connection with the design of various buildings for his College at Exeter.

Some incidents which ensued when this year's Royal Gold Medalist won the competition for the Sheffield Public Halls were recalled by SIR BASIL GIBSON, J.P. There was considerable surprise in Sheffield, he said, when Mr. Harris suggested that the site which had been most carefully selected for the proposed Public Halls was unsuitable for the layout which he had prepared. By his persistence and persuasiveness, however, continued Sir Basil, Mr. Harris succeeded in obtaining a more suitable site, even though a special Act of Parliament was necessary for the compulsory purchase of a portion of it.

The pride of the citizens of Bristol in their Council House (designed by Mr. Vincent Harris) was expressed by MR. ROBERT LYNE, Lord Mayor-elect of Bristol. Mr. Lyne said that his city was so steeped in tradition that schemes for new buildings were never readily accepted, and such an important project as a new Council House was not a matter to be treated lightly. In view of these facts, which had to be taken into consideration, the architect deserved exceptionally high praise for the perfectly harmonious design which he had produced.

SIR PERCY THOMAS said that he had been a contemporary of Mr. Harris for many years. The last time he competed against him was in 1914 in the competition for the Board of Trade buildings on the embankment. After a prolonged delay the scheme was now under way—under Mr. Harris's direction. Other examples of Mr. Harris's work which Sir Thomas mentioned were Glamorgan County Hall and Cardiff fire station. All his work, he said, had a quality which removed it from the commonplace and the orthodox. His elevations were definitely the finest which were produced between the two Wars, and his planning would bear comparison with that of any age.

In his reply, MR. HARRIS referred to the democratic spirit of the R.I.B.A. and what it stood for in architecture. The Institute was founded on faith and must continue to be upheld by the same belief. Mr. Harris spoke also of the lean architecture of today and expressed the hope that when the battle of the styles had subsided and the demands of the rearmament programme had been met, it would be realised that from the gains of the past would be born the achievements of the future.

SCHOOL BUILDINGS in Prefabricated Timber

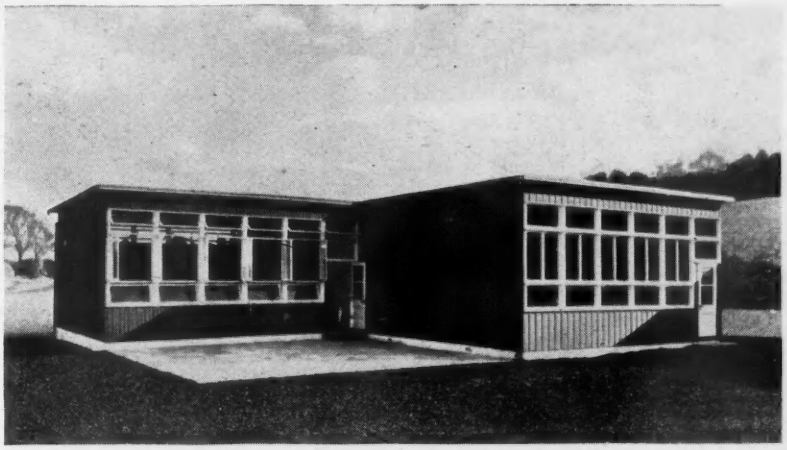
THE forthcoming Census is likely to reveal a fact of which education authorities for some time have been only too well aware, that the child population of Great Britain has outstripped the estimates on which the post-war schools building programme was based. Under current economic conditions the task of maintaining, let alone expanding, the programme is one which will strain resources of available material and labour for some years to come.

A new addition to the constructional armoury will be welcomed by education authorities and their architects, especially if it reduces the demand on the limited site resources of the building industry. In school planning there is already a considerable measure of standardisation, and the application of some basic method of prefabricated construction is a natural development. When such method employs a material with the workability, flexibility and insulative qualities of timber, it is of more than usual interest.

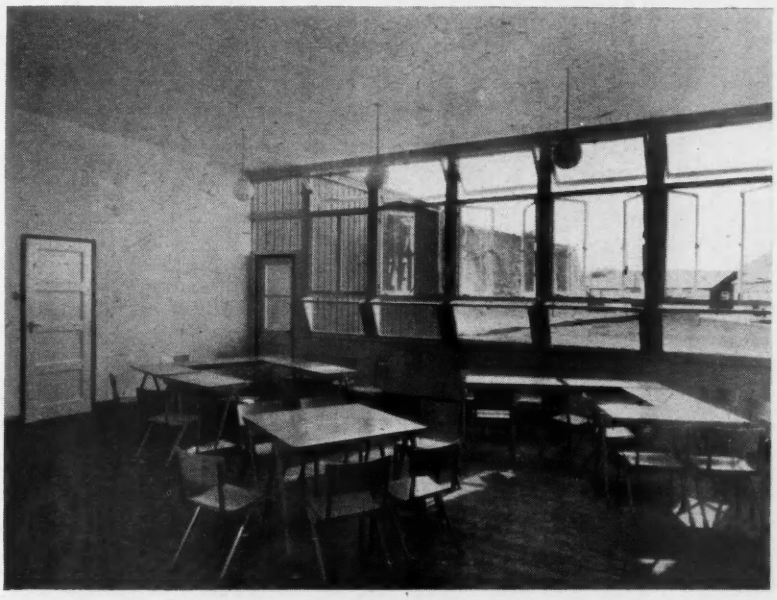
The Medway system of school buildings takes advantage of a scheme sponsored by the Government by which semi-fabricated timber structural units may be imported from Scandinavia, the softwood units being wrought and built-up in this country into sections which can be assembled on site. These buildings are available to education authorities without timber licence. There are three alternative types of building, two of which are illustrated. They offer a range from which it should be possible to evolve plans to meet almost all circumstances. The services of a consulting architect are available to offer advice in the early stages of planning.

Mark I (not illustrated) is a simple traditional design of classroom suitable for rapid low-cost construction to overcome urgent accommodation problems. Mark II is a superior design of permanent classroom building, suitable for extensions to existing schools. Mark III is a basic system of permanent character offering a very wide scope in planning, particularly for new schools Some of the plan variations of the Mark II system are shown on following page Planned on a 4-ft. grid with flat roof and alternative ceiling heights for varying types of accommodation, these units can form the basis of independent blocks of one or more classrooms with or without cloakroom and lavatory accommodation. Interchangeability of the units means that the architect is able to plan economically in relation to requirements and site conditions while yet retaining a wide measure of individuality in the design.

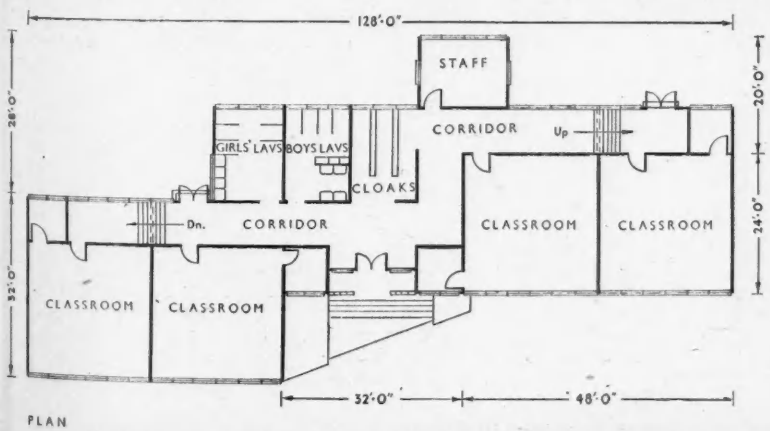
The buildings are attractive in appearance and conform to all educational requirements. While the manufacturers, Medway Buildings and Supplies, Ltd., do not undertake complete building contracts, they have organised arrangements, if desired, for the site erection of the shell buildings on foundations prepared by the main contractor.



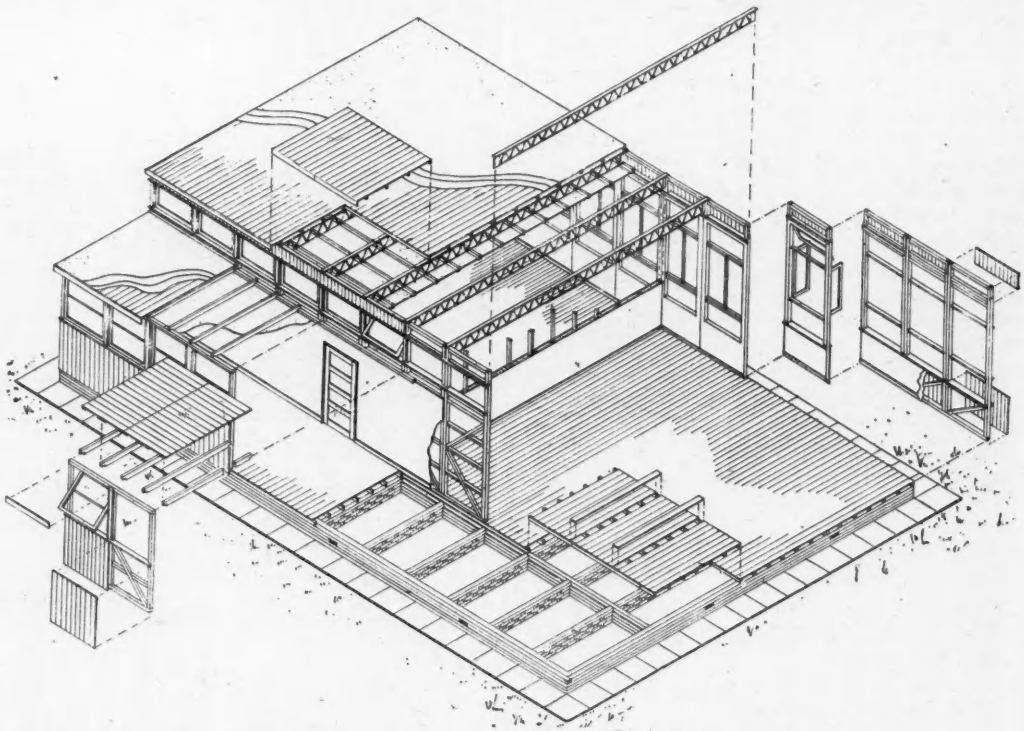
Sections of a Mark III school



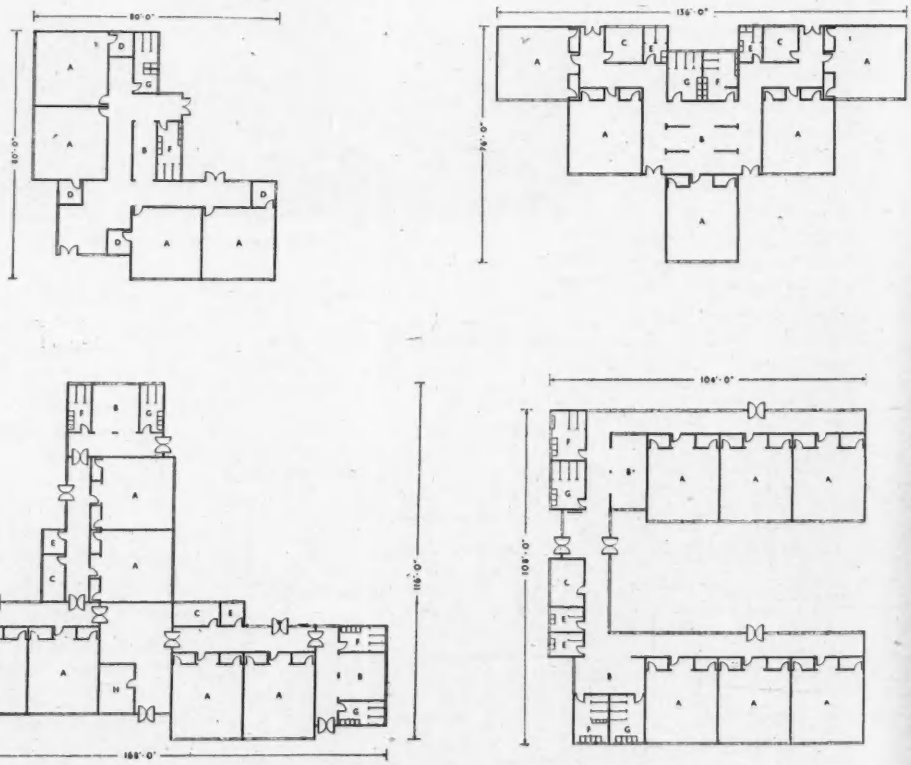
Classroom of a Mark III school



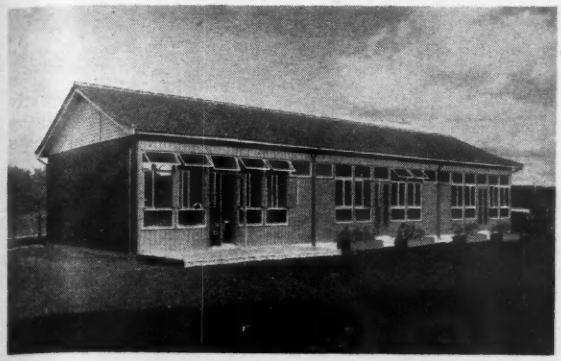
Plan of Mark III 4-classroom unit adapted to a sloping site where it is necessary to build across contours



Drawing showing principles of construction of the Mark III system



Four plan variations of the Mark III buildings



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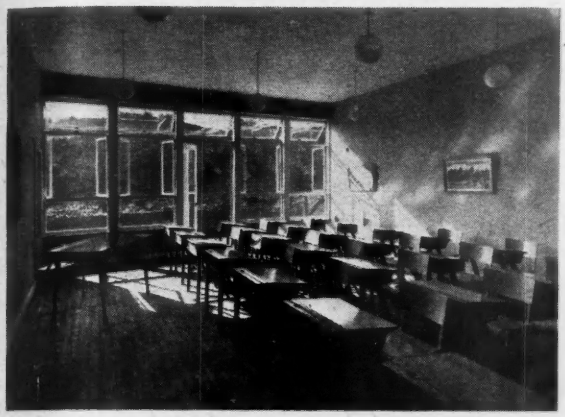

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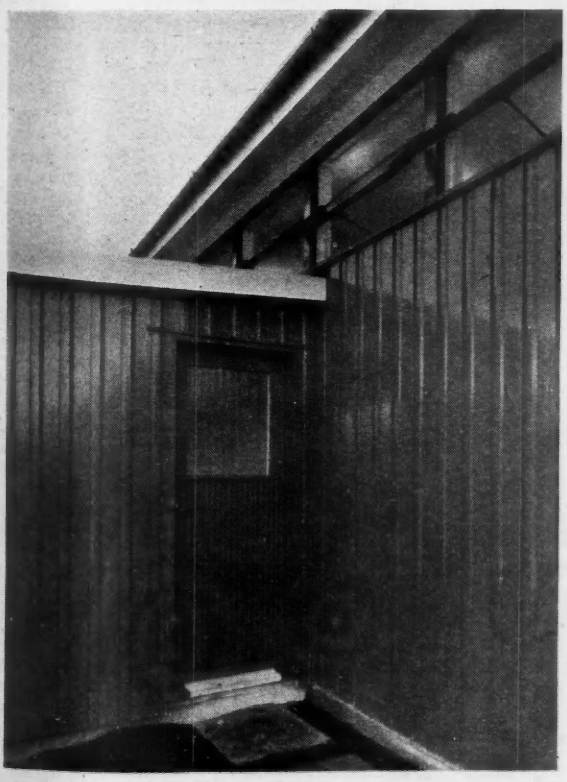

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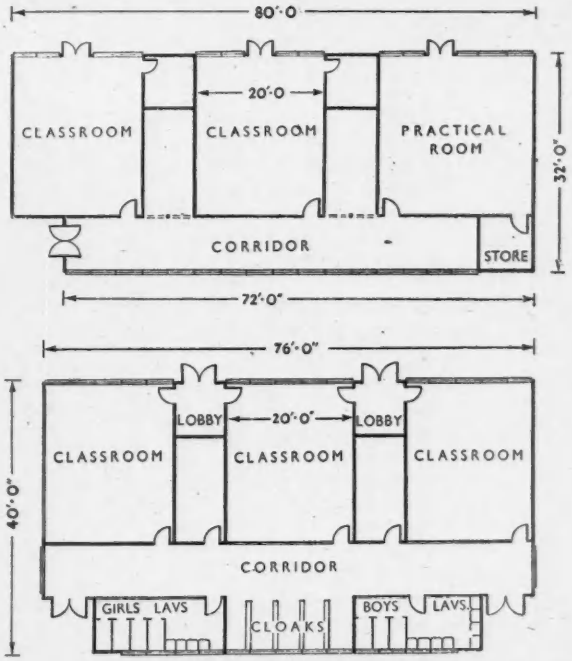

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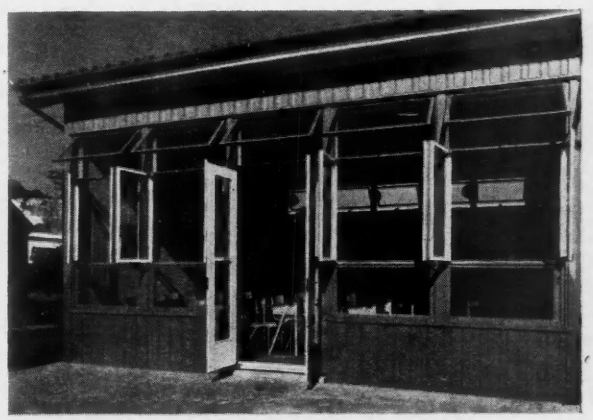

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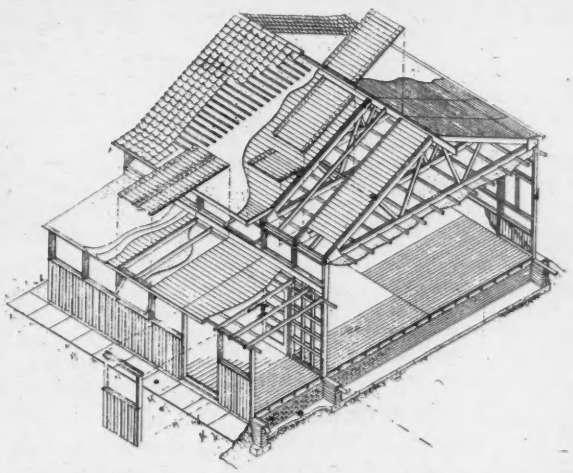

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THE "MEDWAY" MARK II SCHOOL: (1) 3-classroom building; (2) typical classroom; (3) detail of wall cladding; (4) plans of 3-classroom building. *Top:* variation with side corridor having clearstorey windows above. *Below:* with same basic structure the 8-ft. high building is repeated on plan to provide cloaks, lavatories and corridor: (5) detail of window treatment; (6) drawing showing general construction principles

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Operatives' Wage Increase and Cost of Housing

TO THE EDITOR OF *The Builder*

SIR,—There are two points I find it necessary to raise on Mr. Roberson's letter in your last issue (March 30).

1. The Girdwood Second Report gives the man-hours as 2,575. A 3d. increase, therefore, totals just on £32 4s. on wage costs (near enough to my previous calculation of £31 odd).

2. I repeat that the National Joint Council has made no announcement relating to a sum of £25.

R. COPPOCK,
General Secretary, N.F.B.T.O.
Federal House, S.W.4.

TO THE EDITOR OF *The Builder*

SIR,—I hasten to draw your attention to the fact that my letter published in The *Builder* for March 30, was written as a comment on correspondence published in your issue of March 16, and previously. Also on March 30 you published a letter from Sir Richard Coppock which renders some of my criticisms superfluous. Also, Mr. Johnson attributed the statement about the £25 increase to the National Joint Council and I accepted this as correct. I realise now that this was your own comment.

Sir Richard's letter in your issue of March 23 refers to the net cost of labour of £348 on a house costing £1,321 as given in the Girdwood Report. To me this figure of £348 appears incredibly low. It definitely does not include for guaranteed and travelling time nor does it appear to include off-site wages in the joiners' shop and the yard. All these items are affected by the wage increase and should be included in the increased labour cost.

In fairness to the builders who have to justify their increased costs when negotiating for contracts under Circular 92 and when quoting for work under private licences, I feel that the matter of increased costs of both labour and material since October, 1949, to which the Second Girdwood Report refers, is being very much underestimated. It is my contention that a house costing £1,321 in October, 1949, now costs approximately £1,520. Timber increases alone account for more than 25 per cent. of this rise.

I should be interested to know also whether builders generally are experiencing difficulty in reconciling Girdwood Report figures with their own costing, not so much as regards the total building cost as the proportions for labour and material.

J. A. ROBERSON, A.R.I.C.S.
60 Greenways, Beckenham, Kent.

Dry Rot in Buildings

TO THE EDITOR OF *The Builder*

SIR,—My attention has been drawn by a member of the Technical Sub-Committee of the British Wood Preserving Association to an article in your issue, dated January 26, entitled "Dry Rot in Buildings." Having carefully read and re-read this article I am impelled, in fairness to your readers, to point out certain inaccuracies in it. In the first place I must draw your attention to the incorrect spelling of the botanical names. The true dry rot fungus is *Merulius lacrymans*; the *Poria* species is *Poria vaillantii*. There is, so far as I am aware, no species known as "porallia." The cellar fungus, the third species of which a botanical name is given, is *Coniophora cerebella*. I am unable to trace a fungus called *Poria monticola*.

The author appears to be unaware that the moisture content of timber is expressed as a percentage of the *dry weight*, not of the volume, which is not constant. Further, the equilibrium moisture content of wood is, in this country, very rarely, if ever, as low as five per cent., or indeed as ten per cent. except in centrally heated buildings in the winter. Even in timber drying kilns the moisture content is not usually taken below ten per cent., although veneers are occasionally dried below that point. The sentence at the end of the second paragraph on p. 148 is entirely misleading since all preservatives are poisonous to fungi and the object of preservative treatment is to render the timber toxic. In the middle column there are other misleading or inaccurate statements. In the second paragraph the remarks concerning chromated salts are inaccurate. They cannot correctly be described as of very recent origin since some of them have been in use for thirty years or more and have proved efficient over that period. The next paragraph would better have been omitted since the use of Z.M.A. has largely been confined to the United States where I believe it has lost favour. In any case it is not available here. I will, for the sake of brevity, omit comments on the paragraph relating to pentachlorphenol, but must point out that the railway companies for many years have treated their sleepers by a pressure treatment, commonly known as "the full cell process."

The paragraph immediately below the middle of column 3 is inaccurate. It is more than a century since pressure plants began to be used and they can scarcely, with accuracy, be compared to pressure cookers. Further, the first preservative to be used for impregnating timber under pressure was creosote, and again water soluble salts are not used at high temperatures.

This Association has produced, under the auspices of its Technical Sub-Committee, a leaflet containing reliable information on dry rot. Unfortunately there has recently been such a demand for copies that stocks have been exhausted. However, it is being reprinted and I shall be glad to forward a copy to you when it is available.

H. A. COX,
Director, British Wood Preserving Association.
75, Cannon-street, E.C.4.

***We have shown this letter to the author of the article, Mr. C. W. Peach, A.R.I.C.S., who writes:—

I am indeed indebted to your correspondent for pointing out the correct spelling of the botanical names used in my recent article.

If laboratory tests are carried out on a particular specimen of wood, water content may be related to the dry weight of that piece, which remains constant. But two planks equal in scantling and length converted from the same log will normally not weigh the same because the density varies. It therefore follows that the dry weight of wood *will* vary in each foot run of 4 in. by 2 in. you handle.

You can obtain great accuracy from averaging results from many specimens, but few builders have time or laboratories for this. In the building industry we want to know how much water present in wood will germinate dry rot spore, and how much implies volume, which appears to vary less than density in timbers of different sources. And percentage of volume is suitable for practical purposes, being normally used in the building industry, e.g. 2:1 cement and sand mortar, paint thinned 50 per cent. Percentages of dry weight and percentage volumes will naturally have different figures, one of which should not be used to discount the other without proper analysis. The basis of measurement used in this instance was quite clearly stated.

In regard to the sentence at the end of the second paragraph, page 148, builders and professional men who come into contact with cottage-type property will have seen wooden floors to houses lacking damp-proof courses and sub-floor ventilation. Many will have been called in to obviate dry rot and have found earlier treatment, consisting of creosoting affected joists, treating and renewing boarding, to have been inadequate.

Yet put in a damp-proof course, cut out for, and get a good circulation of air, and concrete the site if you can afford it, and you have got at the root of the trouble—the damp. Then you can treat your new and salvaged timber with chemical deterrents, and be pretty certain that no more trouble will ensue.

Your correspondent's censure comes, I think, from the toxicologist's point of view, and is not, I feel, meant to relate to complex conditions met with in building repairs. The same remarks apply to his other criticisms.

I think that my pressure cooker must be a different make from your correspondent's, also I can find no evidence that pressurised timber was obtainable ex stock prior to 1935, though if the plants have been in existence 100 years, where has their output gone? Why is so little known about it among practical men? To make my meaning clear, I do not refer to squirting preservative into logs through hypodermic needles at pressure as "pressurised preserved." It is possible these plants have been in existence 100 years.

My attention has been drawn to the excellent publication by the Department of Scientific and Industrial Research entitled "Dry Rot in Wood." Your correspondent will find the details he needs to identify *Poria monticola* under the heading *trametes serialis* on page 12 of the fourth edition.

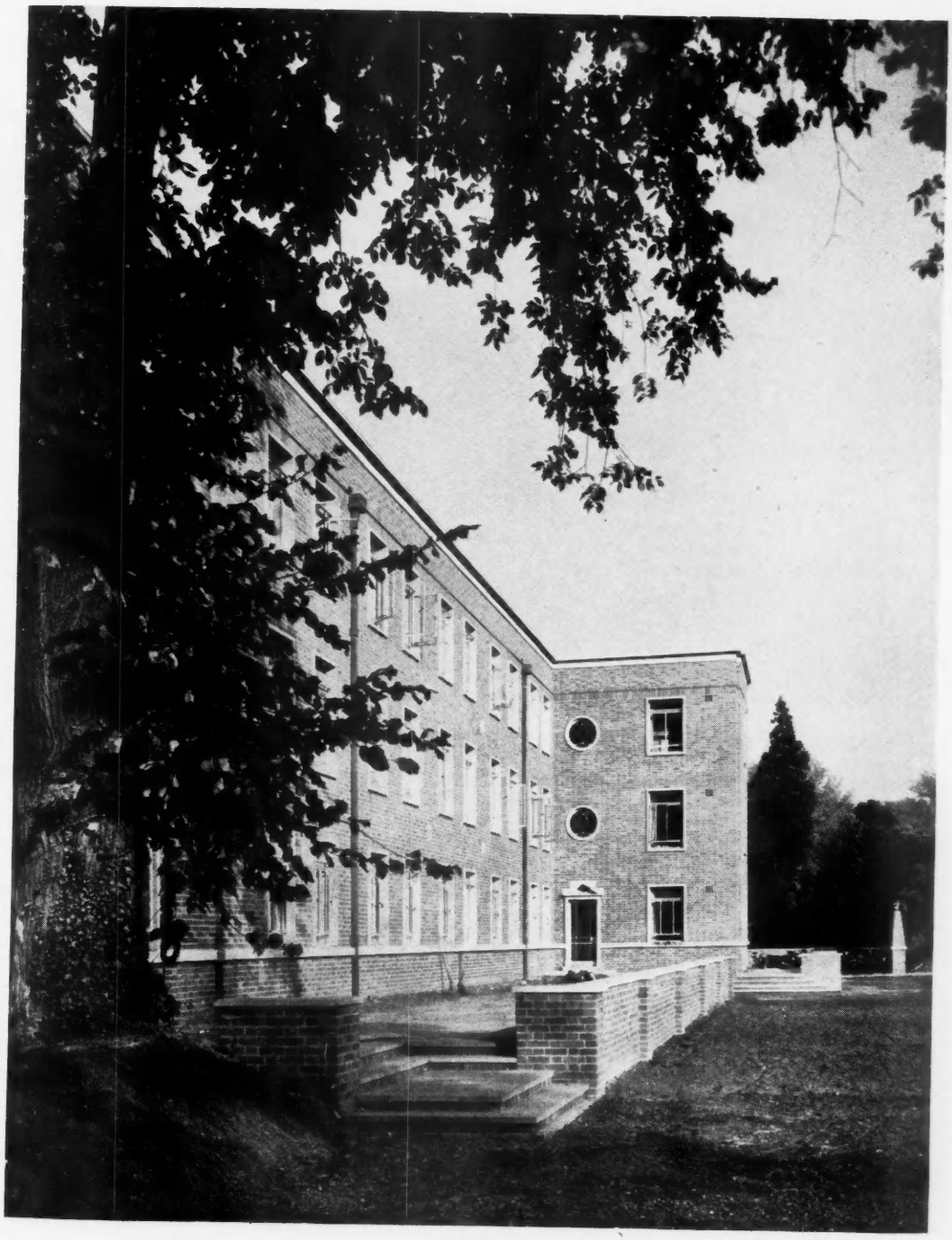
OBITUARY

R. G. Hammond, F.R.I.B.A.

The death has occurred of Mr. Ralton Gardner Hammond, F.R.I.B.A., of Hove, Father and Past-Master of the Worshipful Company of Cooks and Past Master of the Worshipful Company of Innholders. He was 83.

W. O. Langbein, L.R.I.B.A.

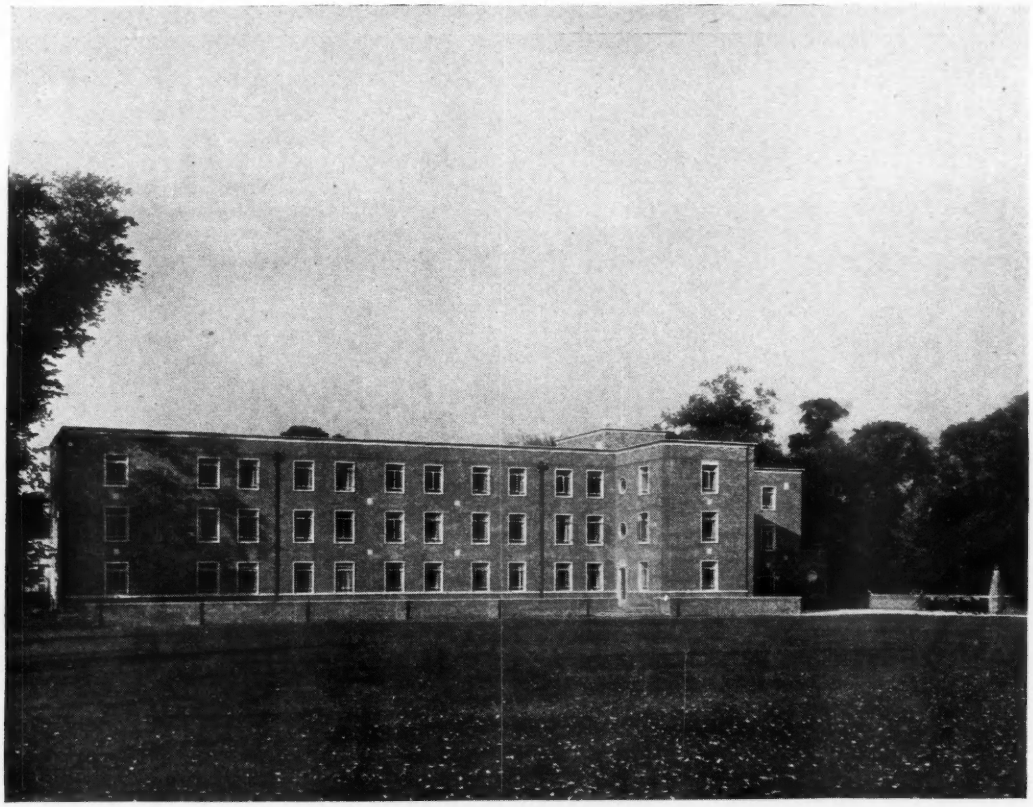
The death has occurred at Ashford (Middlesex) Hospital of Mr. Walter Oscar Langbein, L.R.I.B.A., late of Bowood-road, Clapham Common. He was 80.



Terrace view towards the east

GARDEN HOSTEL, KING'S COLLEGE, CAMBRIDGE

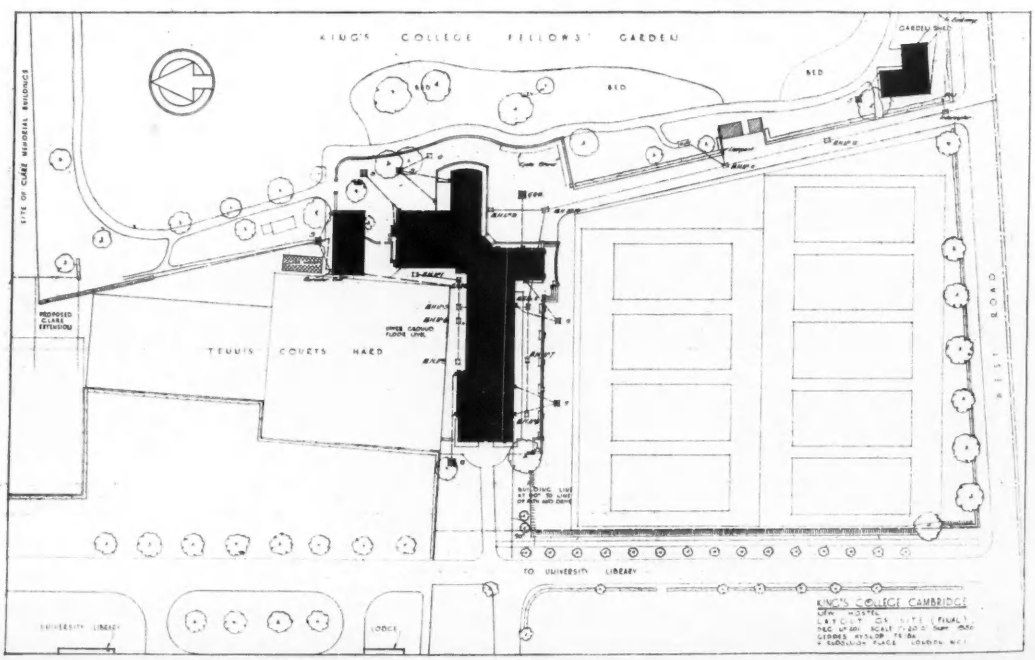
GEDDES HYSLOP, F.R.I.B.A., ARCHITECT



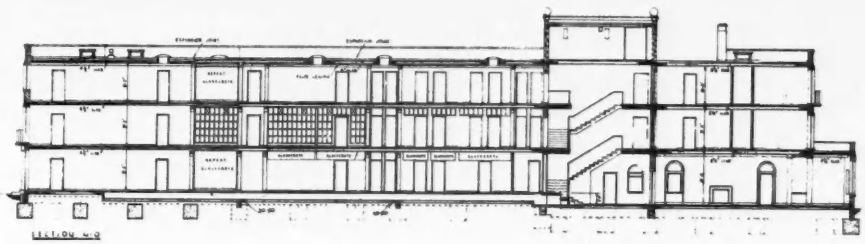
View from south-west. *Below :* **Layout**

THE ever-increasing influx of new students at almost all universities during the past five years has created a great demand for more living accommodation, but the problem has gradually become more and more acute as many of the old type of landladies have disappeared and lodgings have deteriorated and become scarce. College authorities, therefore, have, in many instances, decided to build their own hostels to provide accommodation for all their undergraduates.

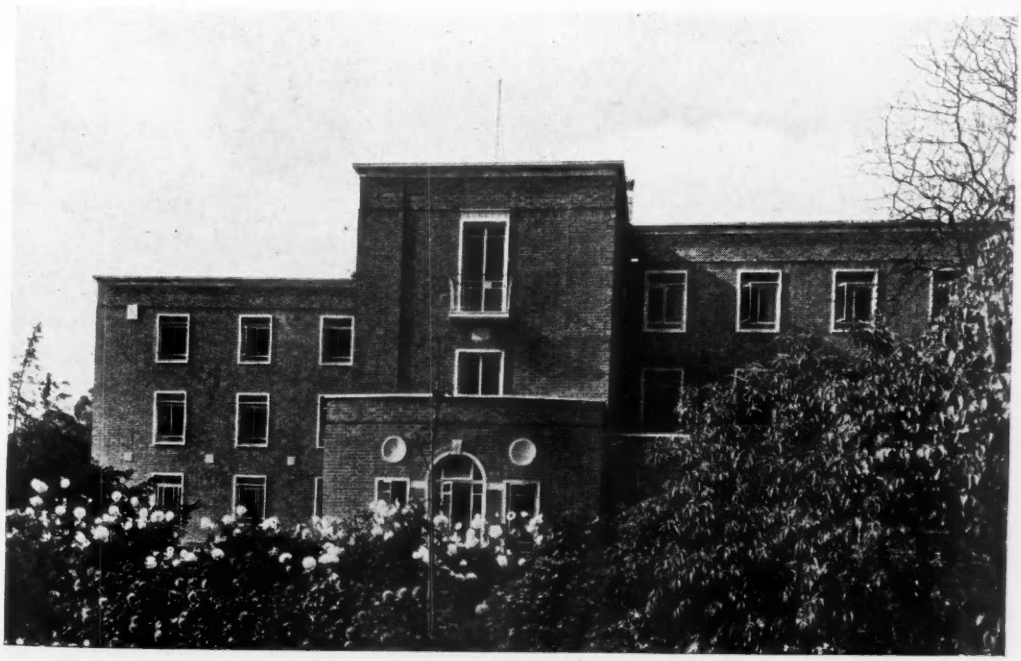
King's College has been one of the first since the war to build new living accommodation. Short of very extensive rebuilding there was no space for extension within the College itself. It was decided, therefore, that the new accommodation should take the form of a self-contained



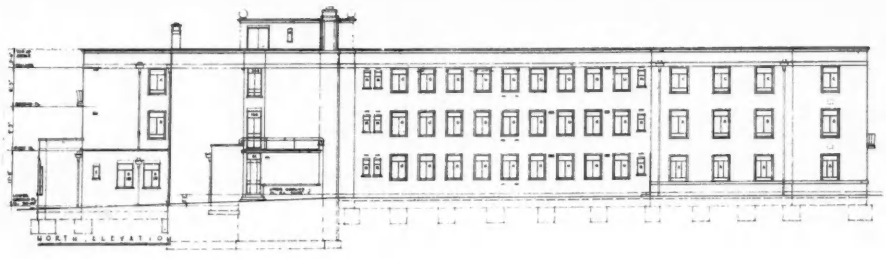
View from north-west showing tank room tower and main staircase window



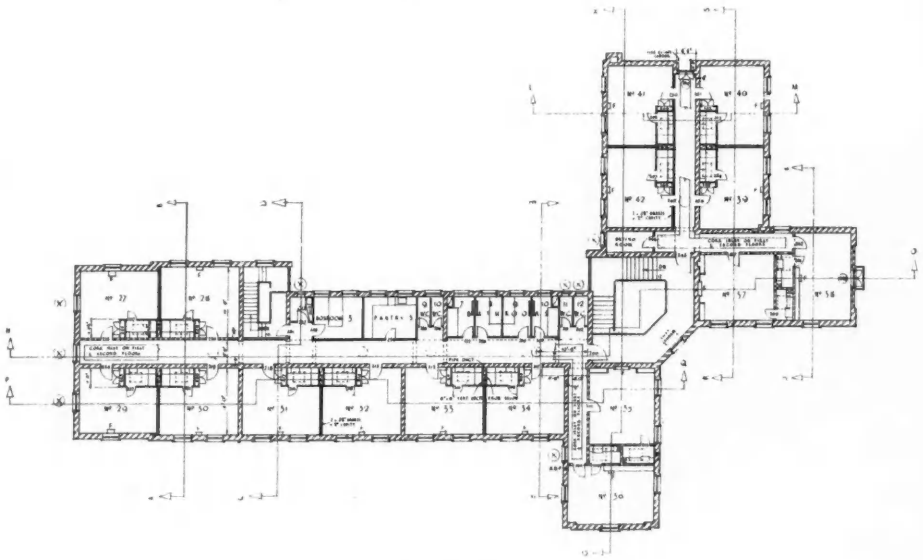
Longitudinal section



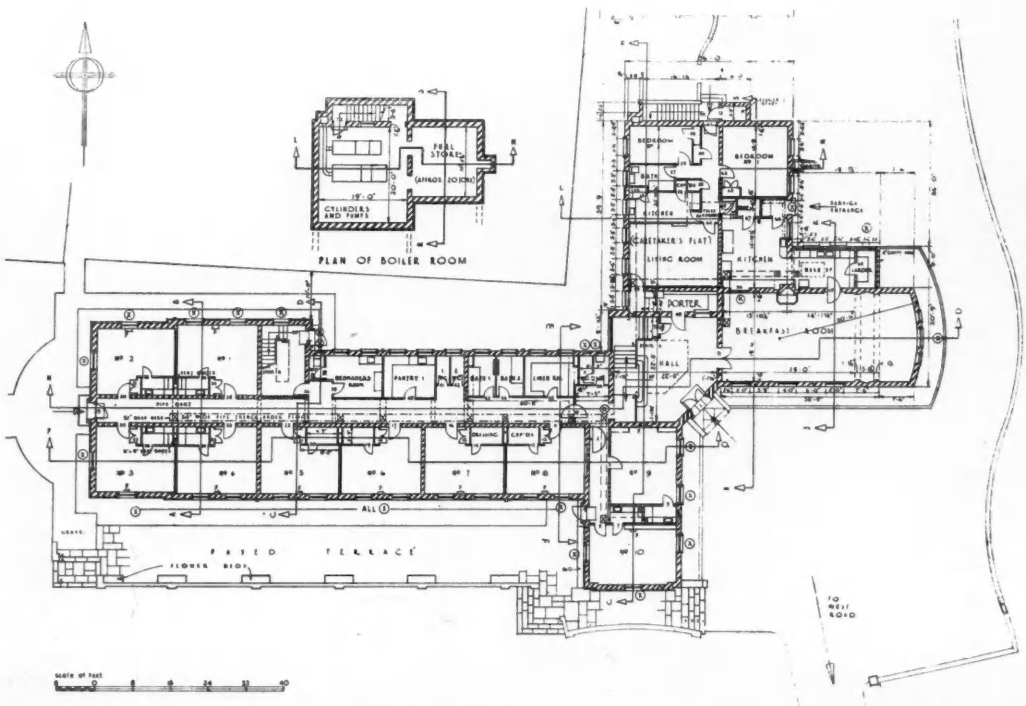
East elevation from Fellows' Garden



The north elevation



Second-floor plan



Ground-floor plan

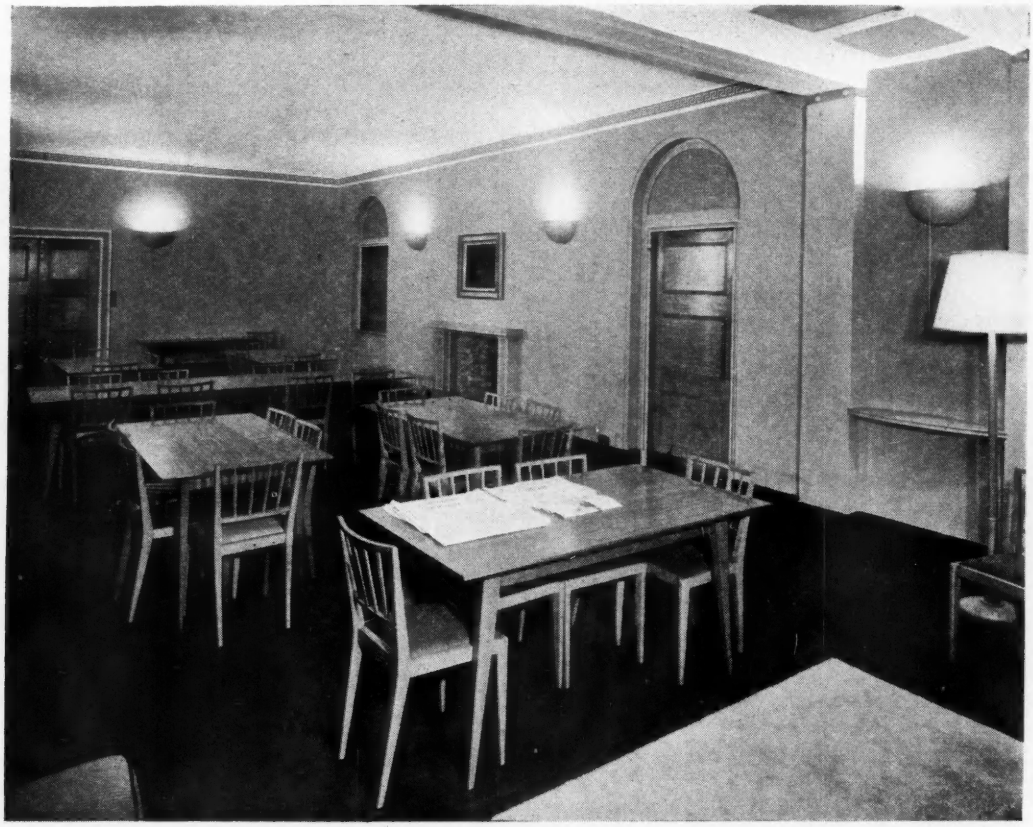
First-floor landing of main staircase. Steps are of granwood with an Ancaster stone string. The tile panel is by Vanessa Bell. The door is oak. (Walls are not yet painted)

hostel built on College property adjoining the Fellows' Garden on the other side of the Backs about five minutes' walk from the College.

Siting.—The site chosen is on the west of the Fellows' Garden, facing West-road on the south, across a large lawn used for tennis, and bounded on the north by some hard tennis courts. The west boundary is the approach to the University library, the tower of which dominates the whole area. The site is ideally open and attractive, but the actual space on which the building is confined is limited, the College expressing a wish that the hard courts should be preserved, the grass courts should not appreciably be reduced in number, and that the Fellows' Garden should be encroached on to the minimum; in fact, it was hoped that from the Garden the building would be invisible.

The layout of the building has met these conditions except for the last and in time, when new trees have grown up, invisibility should be achieved. The lawn on the south was at some time levelled, leaving a strip raised about two feet adjoining the hard courts.

Accommodation.—There are 42 bed-sitting rooms, 10 on the ground floor, 16 on each of the two upper floors; twenty-five rooms have a south aspect, 14 face east or west and three north. For convenience of services the rooms are planned in pairs. Each room has a dressing cubicle (6 ft. 6 in. by 4 ft.) containing a lavatory basin with fittings



Breakfast room. Paint is grey gloss picked out white and grey-blue. Other details include waxed oak doors, Ancaster stone fireplace, acoustic plaster ceiling, granwood flooring

on each side and a hanging cupboard at one end with storage space above; in these all the paraphernalia of a bedroom can be kept. In the normal type room the dressing cubicle is placed on the inside, forming an L shape room, giving the maximum length of external frontage (16 ft. 8 in./17 ft.) and a width, including cubicle, of 14 ft. A bookcase with cupboard under forms the salient end of the cubicle. Apart from this there is no built-in furniture, the occupant being free to arrange the room as he wishes, though the position of the bed is suggested by a panelled dado at one end of the room. A variety of room type is provided in the two salient wings; these slightly larger and isolated rooms are intended for piano players.

Main corridor, second floor. (Walls are not yet painted)

The north side of the main block is devoted on all floors to bathrooms, w.c.s, box room and pantry. The latter are fitted with sink and gas rings for the tea making and light cooking done by the students. On the ground floor, in addition to the 10 bed-sitting rooms, is the main entrance hall, breakfast room, kitchen and caretaker's flat. Only breakfast is provided in the hostel, other meals being taken in the College hall. The end of the breakfast room is arranged for recreation with sofas and armchairs.

Structure.—As it was necessary to take the foundations at least five feet below ground, the walls rest on r.c. beams, spanning between mass concrete bases. The walls are load-bearing brickwork, externally 14 in. Facings are 2½ in. pinkish brown bricks, rather rough in texture, laid in hydro-hydraulic lime mortar, pointed as the work proceeded with a slightly grooved joint. The walls between bed-sitting rooms are 9 in. brickwork or two thicknesses of 2½ in. breeze blocks with a 2 in. cavity and no ties. Partitions are half brick and 3 in. breeze.

Floors are Kleine hollow tile, spanning between walls without beams. Floors have a 2½ in. screed to take the coils of the heating panels. Damp courses at ground and parapet level are in copper. The boiler room tanking is asphalt. The roof is insulated with one inch cork, screeded in foamed slag and finished with one inch asphalt.

Windows are in steel, purpose made; those in the bed-sitting rooms on upper floors have no central mullion. On

Bed-sitting room on second floor. Details include dark green walls, white ceiling and woodwork, mahogany dado and furniture, red, white and black check curtains

the ground floor the windows have two centre pivoted lights which prevent entrance or exit, to conform with university regulations. Heating is by floor panels. The piping runs from the boiler room in a trench under the main corridor and rises in ducts adjoining the dressing cubicles.

The approximate total cost, including all external work, but excluding the garden shed, is £64,000, or 5s. 3½d. per ft. cu.

The general contractors were Messrs. Rattee and Kett, Ltd., of Cambridge, and the general foreman, Mr. W. L. Blunt. Following is a list of sub-contractors:—

Asphalting, Limmer and Trinidad Lake Asphalt Co.; balustrading and metalwork, C. E. Welstead and Co., Ltd.; bricks, facing, Finnis, Rualt and Nicholls, Ltd.; cooking appliances, Falkirk Iron Co., Ltd.; cork flooring, E. J. Elgood, Ltd.; doors (solid flush), Samuel Elliott (Reading), Ltd.; distemper, Walpamur Co., Ltd.; electric installation, Alliance Electrical Co., Ltd.; electric fires, W. M. Froy and Sons, Ltd.; electric light fittings, Oswald Hollmann; external lanterns, General Electric Co., Ltd.; flooring, Granwood Flooring Co., Ltd.; floors, Kleine Co., Ltd.; fibrous plaster, G. Jackson and Sons, Ltd.; flagstaff and lightning conductor, J. W. Gray and Son, Ltd.; glascrete and roof lights, J. A. King and Co., Ltd.; glass dome lights, Pilkington Bros., Ltd.

Heating and hot water installation, Benham and Sons, Ltd.; ironmongery, Yannedis and Co., Ltd.; joinery, Rattee and Kett, Ltd.; lead rainwater pipes and heads, T. R. Freeman; paint, Glasso Paint Products, Ltd.; plumbing, Burn Bros. (London), Ltd.; sanitary fittings, John Bolding and Co., Ltd.; stonework, Rattee and Kett, Ltd.; tiling, coloured glazed, John Bolding and Co., Ltd.; tiling, roof to garden shed, Roberts Adlard and Co., Ltd.; windows, C. E. Welstead and Co., Ltd.; stone carving (coat of arms), Peter Morton; decorative tile panels, Quentin Bell; furniture, Heal's Contracts, Ltd.; curtains, Primavera; curtains in breakfast room, Heal's Contracts, Ltd.

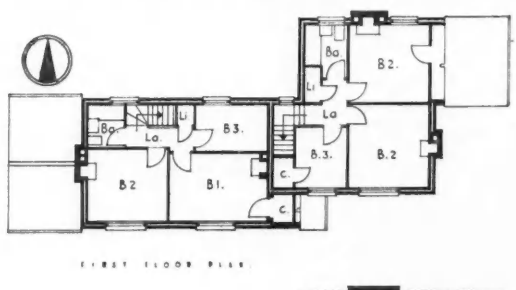
Another bed-sitting room on the second floor where the dressing cubicles are top-lit. On the lower floors the cubicles are vented by ducts to the roof, finishing with archimedian cowls

NEW COTTAGES AT SHOTTERY, STRATFORD-ON-AVON

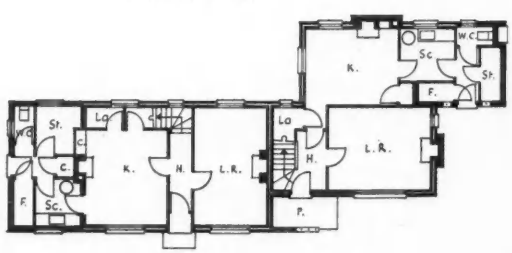
FRANCIS W. B. YORKE, F.R.I.B.A., and H. M. BARKER, L.R.I.B.A., ARCHITECTS

THESE two new cottages, erected for a private client, are situated near Ann Hathaway's famous cottage at Stratford-on-Avon. London Brick rustic facings have been used throughout, together with hand-made roofing tiles, Gibbons steel casement windows set in wood surrounds, and oak cills. Flooring on the ground floor is partly of oak strips and partly cork tiling (Edwards Ruabon tiles have been laid in the kitchen), while boards on joists have been used on the first floor. The porches are oak framed and the chimneys built in the local traditional manner.

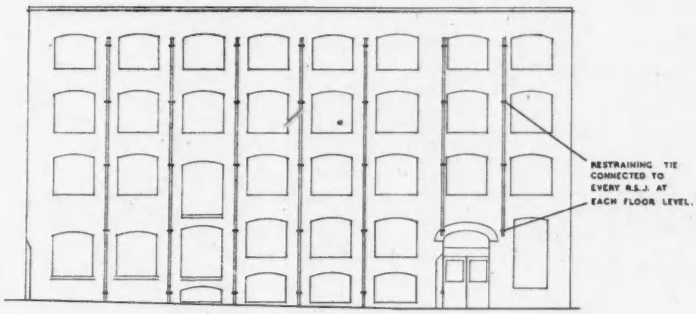
J. G. Fincher and Co., Ltd., Ely-street, Stratford-on-Avon, were the general contractors, and the following sub-contractors :—Metal windows, James Gibbons, Ltd.; cork flooring, Mundet Cork Co.; roofing, Wormells; grates and sanitary fittings, A. D. Foulkes, Ltd.; ironmongery, Mountford Bros.; patent flooring, Norman W. Dunn, Ltd.; electrical work, N. W. Dixon, Stratford-on-Avon.



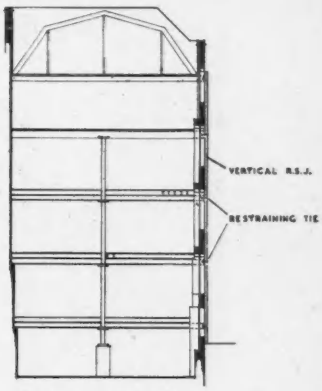
FIRST FLOOR PLAN



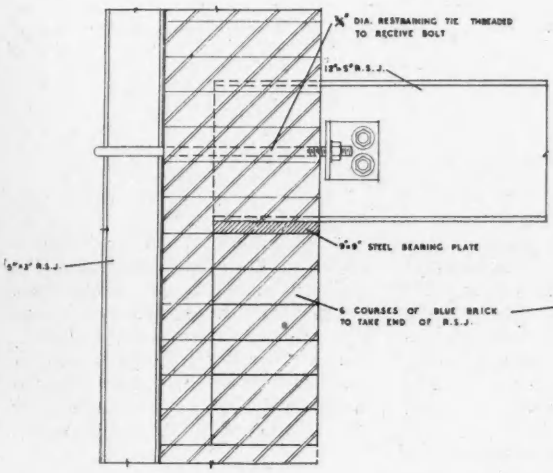
GROUND FLOOR PLAN



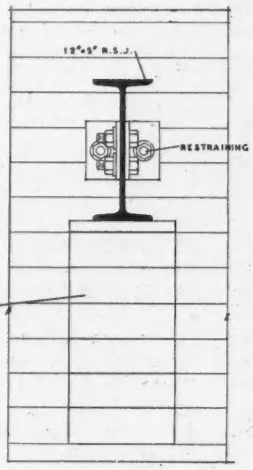
SIDE ELEVATION



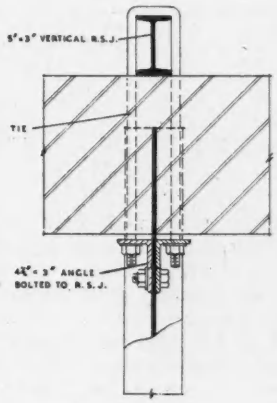
CROSS SECTION



ELEVATION OF RESTRAINING TIE



SECTION THRO' R.S.J.

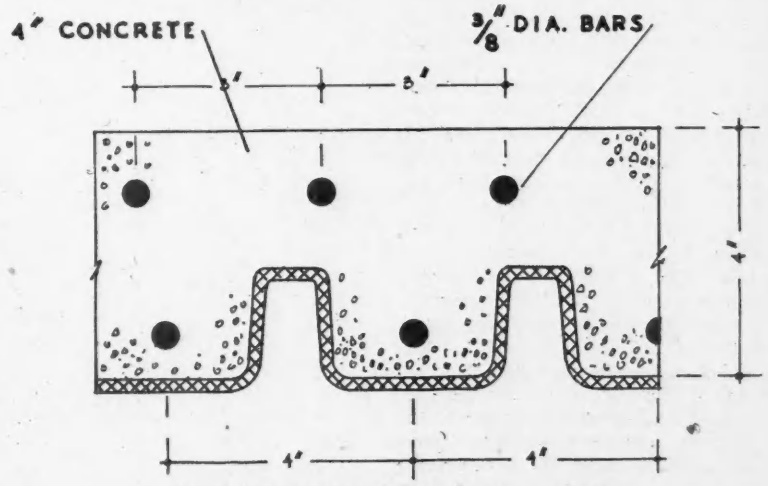


PLAN OF TIE

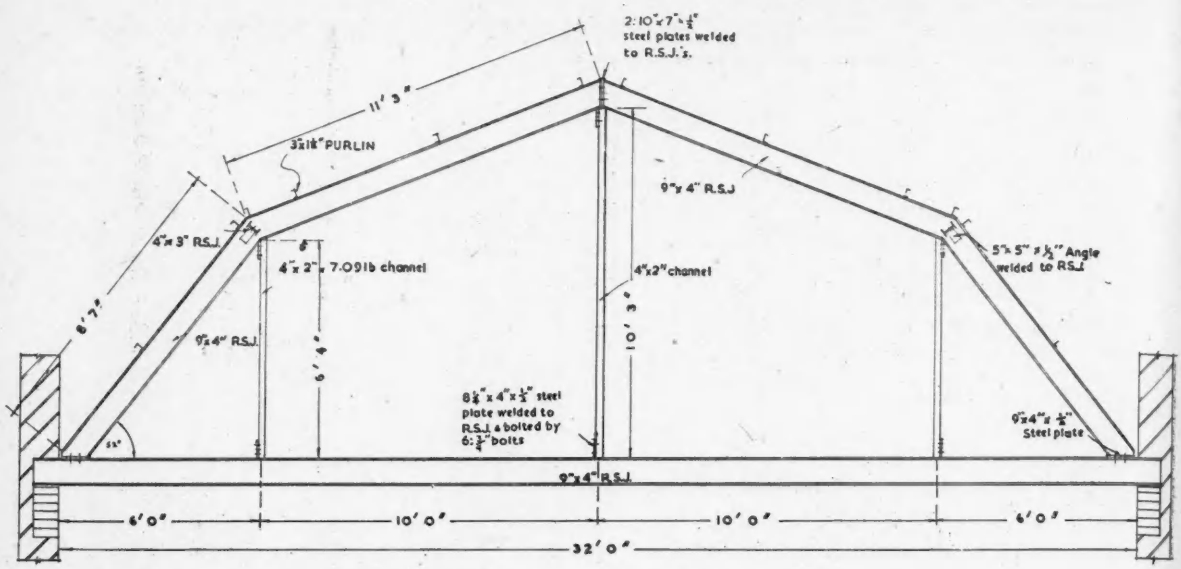
RECONSTRUCTION OF WAREHOUSE, STANHOPE-STREET, N.W.1

A. V. PILLEY, F.R.I.B.A., ARCHITECT

THE reconstruction of these premises, partly burnt out by a fire bomb which fell down the old lift shaft, introduced some interesting and difficult problems. The existing building consisted of brick walls with a row of cast-iron columns in the centre with R.S.J.s bearing on the external walls and cleated to the column heads. The wood joists to the timber floor were supported by the R.S.J.s and the floor finish was two layers of 1-in. boarding. The old roof consisted of timber trusses, with hipped ends, and the roof space had been boarded over and used as warehouse floor area. The third floor was completely burnt out as was also the whole of the roof and two bays of the ground floor adjoining the lift shaft. In order to avoid the use of timber, the third and fourth floors were reinstated by concrete slabs. These slabs are of



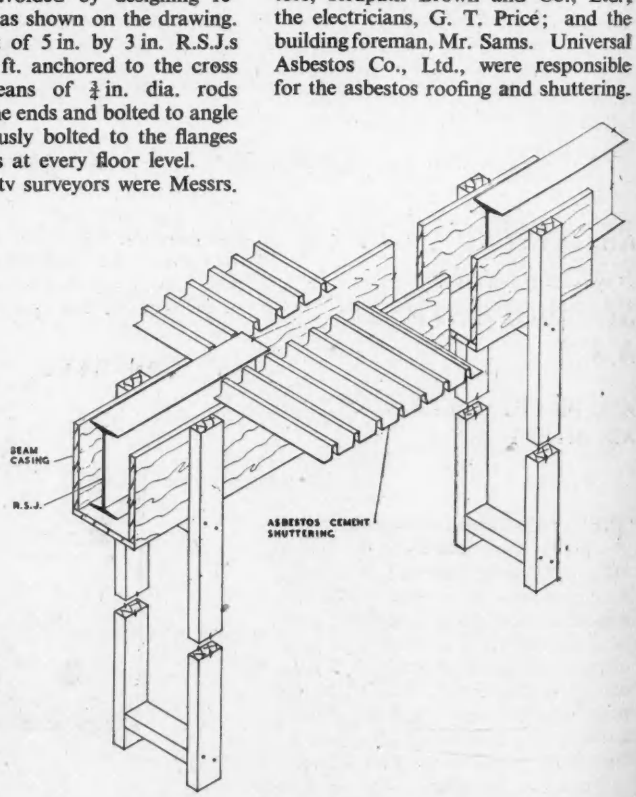
Typical floor detail for bays spanning 11 ft. 2 in.



ELEVATION OF TYPICAL ROOF TRUSS

an average thickness of 4 in. in the middle bays and 4½ in. in the end bays, full advantage being taken of the continuous span and the design benefit of negative moments over the points of support. The shuttering consists of standard asbestos cement tile batten trays, normally used in lieu of tiled roof battens. These sheets were supported on temporary shores, the corrugations being utilised to form a kind of "T" slab. The reinforcement is in ⅜ in. dia. rods extended over the supporting beams but not hooked or cranked. The bottom bars were supported on little cement pads precast on the site and grooved to ensure proper alignment of the bottom reinforcement. The lining up of the top rods was ensured by cutting ½ in. wide slats drilled at the appropriate centres through which the rods were threaded. The concrete was poured in and the spacing battens shifted as the work proceeded. One set of spacing battens only was required, as each bay was cast separately. The concrete mix to the slab floor was 1:2:4 with coarse aggregate to pass ¾ in. mesh. The permanent asbestos shuttering was left exposed and provides quite a good finish. The steel trusses are shop welded, and assembled on the site. The bottom chord acts as a beam supporting the concrete slab floor and the centre tie-rod halves the 32 ft. span. The third floor has therefore a clear unobstructed floor area. The concrete slabs are designed to carry a super load of 100 lb. per sq. ft. which is equivalent to that of the existing floors below. The external wall was found to be bulging about 4 in. and the district surveyor considered the possibility of having to pull down this wall in order to rebuild in plumb. This drastic action was avoided by designing restraining ties as shown on the drawing. These consist of 5 in. by 3 in. R.S.J.s at 11 lb. per ft. anchored to the cross joists by means of ¾ in. dia. rods threaded at the ends and bolted to angle cleats, previously bolted to the flanges of the R.S.J.s at every floor level.

The quantity surveyors were Messrs. Ord and Barnsley; and the consulting engineer, Mr. Felix J. Samuely. The builders were Messrs. Collins and Prior, Ltd.; the engineering contractors, Redpath Brown and Co., Ltd.; the electricians, G. T. Price; and the building foreman, Mr. Sams. Universal Asbestos Co., Ltd., were responsible for the asbestos roofing and shuttering.



ISOMETRIC SKETCH SHEWING FIXING OF SHUTTERING

THE CARE OF CHURCHES

Practical Notes

SOME useful notes on the care of churches and their fittings are given in an illustrated pamphlet on "The Rural Dean's Visitation," just issued by the Central Council for the Care of Churches (price 6d., The Church Information Board, Church House, Dean's Yard, Westminster, S.W.1). We take the following extracts on points of structure:

Exterior

Surface Drainage. If the soil of the churchyard is above the level of the floor inside, the church will almost certainly be damp and cold. A paved offset sloped away from the base of the walls into an *effective* channel is the ideal in most cases. These channels must be kept in good condition; wet will collect in cracks in the channel and be drawn into the walls by the warmth of the building. Failing such an arrangement, a well-clipped grass bank sloping away from the wall at a point a little below floor level, to a gulley, or to a narrow unturfed channel about four feet from the walls, is good. At all costs the bases of all walls must be kept free from elder bushes and rank weeds, and open joints pointed up.

Trees. No bushes should be allowed to grow nearer than eight feet from the walls of the church, or trees nearer than 20 feet. Their roots collect moisture which will be drawn into the foundations, their leaves and branches collect rain water which is blown against the walls, causing growths of algae and lichen, and their leaves choke the gutters.*

Ivy. Ivy should never be tolerated anywhere: it does great damage to pointing as well as to stone and brick. *All* creepers tend to collect and hold moisture; and even though beautiful, should be removed if the local stone is of a soft, easily decaying type.

Down Pipes. Square section *iron* down pipes are a great source of trouble: they cannot be painted behind and often rust into holes unseen, letting water into the walls. Square *lead* pipes are sometimes ancient, and not generally subject to decay. Always inquire when the pipes and gutters were last painted, and enter such facts in your report. Iron pipes should be painted every five years: lead pipes should not be painted. Examine the joints in each length of down pipe to see if the connection is sound. See where the pipes discharge: if into traps, are these unchoked, and have they been tested recently? If there are no traps, does the water from the down pipes discharge on to a sloping surface which will carry it well away from the foundations? A down pipe which merely conducts water down from the gutters to discharge it into the foundations of the church is a real menace: the old water spout or gargoyle, provided it projects far enough to throw the water down at a distance from the wall, is safer than a bad down pipe because its action is fully observed.

Eaves Gutters. Examine these closely, using field glasses if necessary. Can the churchwardens assure you that the gutters were cleared of leaves at the beginning and end of last winter? Enter their reply in your report. Regular painting must be carried out, and leaks searched for and promptly repaired. If the gutters leak into the wooden wall plate (the beam running along the wall from which the roof springs), it will be attacked by dry rot very quickly. The valley gutter, between two sloping roofs, is a particular danger point, becoming choked unseen from below.

Walls. Many old walls were meant to be covered with plaster outside. If this remains it must be patched with lime plaster, *not* cement plaster, and lime washed, *not* distempered, every ten years or so. Pointing in an old wall must be done with lime mortar *not* cement mortar. This is because scientists now know that strong cement is injurious to old stone, and its use will soon make matters worse.

Windows. The iron saddle bars are part of the window and must not be cut away, but they need regular painting. Inquire if they have had it. Wire guards collect dirt and iron ones stain stone: all darken windows. Remove unless really valuable glass has to be protected.

Roofs. Examine through glasses for displaced ridge tiles, loose slates or tiles. These should be replaced immediately: it costs a lot to repair or rewhitewash a church spoiled by patches of damp. Look well at the horizontal joints of a lead roof: lead "creeps" down a sloping roof leaving thin patches on the top of the sheets, and open joints.

Interior

Plaster. Any patches of defective or discoloured plaster should be diagnosed. In an old church, plastering, remember, must be carried out in lime and sand, not in cement. Interior decoration should be done with lime wash, *not* with distemper (unless distemper has already been used).

Woodwork. Examine seating, floors, roofs for traces of dry-rot, or wood beetle. Ask if cleaners find little heaps of wood dust on seats or floors: these may be the droppings of wood-boring beetles in the roof.

Monuments. Are these kept clean, and if ancient and delicate, are any pieces broken or loose? Old "brasses" should not be brightly polished: they are made of a thinner and softer metal than modern brass and should only be rubbed with a duster.

The Tower

While *outside* the church examine the parapets and upper stages of the tower with glasses, looking for cracks, defective pointing and loose coping stones.

Inside look for accumulated rubbish at all stages of the tower and try to ensure that it is removed—jam pots, old hassocks, disused oil lamps, broken chairs, all collect dirt and may attract beetle, and are inflammable. Unglazed windows at all stages should be impenetrable by birds: frames covered with *copper* wire netting provide the simplest solution.

Bell Frames. Wooden frames must be kept clean to repel wood beetle. Metal frames and metal parts of wooden gear must be painted every three to five years. Ascertain if this has been done.

Roof. The tower roof should be carefully examined, especially at its ridge and all joints: signs of water penetrating should be looked for inside and out. A leak easily occurs unnoticed here, and does costly damage to bell frame and tower ceilings. From the vantage point of the tower roof, examine the nave and chancel roofs from above, noting especially the state of valleys, and flats behind parapets.

Lightning Conductors. These are dangerous if not effectively earthed. They should be tested every three to five years.

Lighting and Heating

Lighting. Gas piping or electric wiring should be tested every three years by an inspector of the gas or electricity undertaking, not merely as to lighting efficiency but as to *safety*. Ascertain if it has been done. This is essential, as a church is (i) a more valuable building than a private house, and (ii) it is more liable to fluctuations of temperature and humidity than a modern, or a regularly inhabited, building. If oil lamps are used see that the paraffin and the oily rags are kept in a safe place.

Heating. See that the coal and coke are stored tidily and not where dust will soil the church.† Find out when the flues were last cleaned. Is there any risk of woodwork near the radiators, stoves, or boiler becoming overheated and burning?

Organ. Remember that the organ is very inflammable. Electric organ blowers, and extensions to lamps fixed by amateurs on organists' seats, have caused several recent fires.

The electricity should in all churches be turned off at the main switch every night.

*Large trees in churchyards must not be cut down without permission of the Dilapidations Board of the diocese.

†Coal and coke should not be stacked against the wall of the church: it may be chemically injurious to the stone or brick as well as collecting damp.

SHEET STEEL

Housing Authorities' Procedure

THE MINISTER of Local Government and Planning, in Circular 11, addressed to Housing Authorities, refers to the Transfer of Functions (Minister of Health and Minister of Local Government and Planning) (No. 1) Order, 1951, by which certain functions of the Minister of Health have been transferred to the Minister of Local Government and Planning. These transferred functions include those relating to housing as specified in Part I of the Schedule to the Order.

Reference is also made to the Control of Iron and Steel (No. 80) Order, 1951, which amends the Control of Iron and Steel (No. 62) Order, 1948, by applying the symbol "H.E.D." in the Second Schedule to that Order to the Ministry of Local Government and Planning.

The effect of these changes is that Form M (Sheets) will now be issued by housing authorities on behalf of the Ministry of Local Government and Planning, instead of the Ministry of Health, but that the Departmental symbol will remain unchanged, i.e., it will still be "H.E.D." The existing procedure for completing Form M (Sheets) showing the symbol, delivery period code number, the local authority code number, and the serial number, as explained in Appendix A to Ministry of Health Circular 179/47, is also unchanged.

Liverpool Society's Prizes

The Liverpool Architectural Society Unsworth Essay Prize and the Eccles Sketch Prize have been awarded to A. C. Gordon (Wirral Grammar School) and Glyn Roberts (Rock Ferry High School), respectively. A criticism of the entries of sketches was made by Dr. Ronald Bradbury (Liverpool City Architect and Housing Director), and Mrs. Joan Wilson, architect, criticised the essays.

THE FESTIVAL SEABORNE EXHIBITION

Aircraft-Carrier Converted

THE Festival of Britain exhibition on board the Festival ship "Campania," 16,000 tons, is to visit ten ports this summer. The Festival organisation has received the fullest co-operation from the Admiralty, who have loaned the former aircraft-carrier "Campania" to the Festival authorities for two years. Sir Charles Lillicrap, Director of Naval Construction, planned the conversion from the war-time rôle of a ferry carrier to an exhibition ship in conjunction with the Festival co-ordinating designer, Mr. James Holland, F.S.I.A. The work of conversion has been carried out by Messrs. Cammell Laird, of Birkenhead. Provision and installation of the display were entrusted to Messrs. Cowtan and Sons, Ltd., ship furnishers.

The itinerary is as follows: Southampton (new docks), May 4-14; Dundee (King George V dock), May 18-26; Newcastle (wharf 25/26), May 30-June 16; Hull (King George dock), June 20-30; Plymouth (Millbay W. wharf), July 5-14; Bristol (Avonmouth dock), July 18-28; Cardiff (No. 3 Queen Alexandra dock), July 31-August 11; Belfast (Pollock dock), August 15-September 1; Birkenhead (Bidston dock), September 5-September 14; Glasgow (Springfield dock), September 18-October 6.

The "Campania" will be painted white all over except for the openings and masts, which will be yellow. The Festival symbol—Britannia's head on the compass points—has been built in aluminium on her sides and is flanked by the words "Festival of Britain." All the awnings will be yellow. The ship will be floodlit at night.

Special facilities, including restaurants, are being provided at the ports of call. There is room in the ship for about 2,500 visitors at any one time; the estimated daily attendance is 10,000.

The Exhibition Story

Except for the flight deck, the whole of the display is contained in the hangar, which is 300 ft. long, 70 ft. wide and 25 ft. high. The first half of the hangar tells the same story as the upstream sequence in the South Bank Exhibition, that is, the story of the land of Britain. Visitors first see displays illustrating the origins of the British Isles and of the British people. These displays are in the well of the aircraft lift. From here something is seen of the agricultural use of the land, followed by displays on the mineral wealth of the country, particularly coal and iron. The display here includes a mock-up of a coal-mine.

This is followed by a section showing the use of these materials in industry with particular emphasis on engineering, plastics, glass and pottery, textiles and wood-working.

In the sea and shipping section the importance of radar as a navigation aid is shown. A series of sections on British discoveries begins with terrestrial discovery and the living world. From this point the rest of the discovery story is displayed on a series of rising galleries. Discoveries in the nature of matter, including atomic research and research into inner and outer space, continue the story aft.

In the section dealing with the domestic side of British life the problems of living in towns and in contemporary houses are shown, and various solutions to the problems of furnishings, etc., are illustrated—mainly by five models and a large mural. Contemporary design in furniture and fittings and the problems of recreation in the home are exhibited, and there is a small section on gardens.

Messrs. Furness Withy and Co. have been appointed managers of the ship on behalf of the Festival authorities. The "Campania" will be manned by a Merchant Navy crew of about 120 and will carry approximately the same number of exhibition staff. Members of the Festival Office design staff responsible for the exhibition display, under the direction of Mr. James Holland, F.S.I.A., are: L. A. Wills, Victor Prus, Charles Hasler, Ernest Pollak, Witold Kay, Philip Sharland, Richard Negus and Pauline Behr.

BOOKS

SMALL TOWNS: THEIR SOCIAL AND COMMUNITY PROBLEMS. By L. E. White. Octavo. Published by National Council of Social Service, 26, Bedford-square, W.C.1. Price 3s. 6d.

REALISING that our smaller towns had been somewhat neglected by social research workers, the late Dr. Henry Mess started, during the last war, a survey aiming at assessing the importance, as well as the decline in growth, of such towns, taking as examples those from various parts of England, and studying the quality of their social life. The small and ancient towns which pattern the countryside have contributed much to our heritage and tradition, and to this day they enshrine values and ways of life which we can ill afford to lose.

On Dr. Mess's death in 1944 his work came to an end, while it was still far from complete; unfortunately, the pressure of war-time conditions precluded the National Council of Social Service from taking up the threads of the survey for some years, but as Mrs. Marjorie Bourne, who had assisted Dr. Mess, voluntarily undertook to analyse and collate the material collected, it was recently possible for Mr. L. E. White to embody these studies in a little book entitled "Small Towns: Their Social and Community Problems," which is based on some two dozen towns ranging from around 10,000 to under 40,000 population.

Most of these are located at a distance from large industrial activities and are but little influenced by these; some are county capitals, others centres for rural areas, and a few serve a specialised local industry. The selection covers a remarkable variety of function, and consequently exhibits differences which make it most undesirable to apply standardised methods or remedies for such shortcomings as may disclose themselves. Rather, the view is expressed that the obvious advantages of the small town in various, but not necessarily in quite similar, forms should be taken as the guides for future reconstruction or development, so that the character of the place and its services may be enhanced and not damaged nor thrown out of balance.

This is particularly the case as regards the social structure and relations between the various groupings of the inhabitants, which are normally in better adjustment than in the larger cities, owing to their more intimate character. Measures assisting the kind of organisation indicated by the survey are not necessarily uniform in type; some may be cultural, some social, and others economic. The amenities for the small town will usually be superior to those of the large one; its advocates point out that everyone who so wishes can have a garden in which food may be grown; playing fields and open spaces are more likely to be available near at hand, and the freedom of the countryside is probably within half a mile of the townspeople's homes. The advantages the large centres formerly had in respect of entertainments have now been in great measure discounted by modern inventions such as the B.B.C. and the cinema.

Even the "satellite" and similar new towns are at a relative disadvantage in having to establish their own social structure from an aggregation not initially very definitely unified, whereas the old town has in most cases a well-marked tendency towards some dominating purpose. The 64 questions sent out by the National Council of Social Service to the local committees, which are given in an appendix to this book, cover the ground in such a way that the possible measures desirable can be deduced from the aspects of the problem depicted in the replies.

A dozen appropriate illustrations and much important information in support of the author's arguments on the merits and demands of the small town are included in this booklet.

H. V. L.

BOOKS RECEIVED

PERSPECTIVE DRAWING. By Joseph William Hull. (London: Cambridge University Press.) Price 19s.

PRACTICE AND PROCEDURE FOR THE QUANTITY SURVEYOR. By Arthur J. Willis. (London: Crosby Lockwood and Son, Ltd.) Price 18s.

PRESTRESSED CONCRETE. 2nd Ed. By Prof. G. Magnel. (London: Concrete Publications, Ltd.) Price 15s.

SWEDEN BUILDS. By G. E. Kidder Smith. (London: Architectural Press.) Price 45s.

HOW TO ESTIMATE. By J. Rea. (London: B. T. Batsford, Ltd.) Price 21s.

STANDARD METHODS OF ANALYSIS OF IRON, STEEL AND FERRO-ALLOYS. (Sheffield: The United Steel Companies, Ltd.) Price 17s. 6d.

GAS DISCHARGE LAMPS. By J. Funke and P. J. Oranje. (London: Philips' Technical Library.)

THE ELECTRICIAN'S BLUE BOOK. (London: Benn Bros., Ltd.) Price £2 2s.

PAINT FILM DEFECTS: THEIR CAUSES AND CURE. By Manfred Hess. (London: Chapman and Hall.) Price 50s. net.

⁂ *Books reviewed in these columns may be obtained on application to the Publisher, "The Builder," 4, Catherine-street, Aldwych, W.C.2. Cash should accompany the order.*

Termite Attacks on Buildings

The Forest Products Research Laboratory has produced a concise summary of existing information on the prevention and control of infestation of buildings and timber by termites. Published for the Department of Scientific and Industrial Research by the Stationery Office, Forest Products Research Bulletin No. 24, The Protection of Buildings and Timber against Termites, costs 1s. 9d.

RESEARCH BY D.S.I.R. IN 1950

Progress Made with Building Subjects

AN outline of the steps which have been taken during the past year to deal with the problem of effectively relating the resources at the department's disposal to the country's economic requirements is given by Sir Ian M. Heilbron (chairman of the Advisory Council) in the recently issued annual report of the Department of Scientific and Industrial Research.

Sir Ian reports that his Council is strengthening its relations with the department's establishments and the research associations, and he refers favourably to the scheme now in operation whereby two visitors, an industrialist and a scientist, are appointed for each research association and visit it regularly and submit reports to the Advisory Council.

He points out that neither the establishments nor the research associations are restricted to research on materials and processes. The use of the methods of operational research and of comparative surveys of practice in the factories of member firms offers research associations opportunities of considerable scope for promoting the well-being of industry. Several research associations have participated in this kind of work and have done much to assist their industries in re-equipment by the examination of the performance of new types of machinery and novel methods of manufacture.

Basic Scientific Research

Attention is drawn to the difficulty, in view of the still increasing immediate demands upon the department's resources, of restoring basic scientific research in the establishments to the level necessary for the proper discharge of their duties and for sustaining a reasonable balance between the solution of the problems of to-day and the provision of knowledge which will be wanted to solve the problems of to-morrow. It is stated that heavy demands for advisory work on behalf of the timber industry and users of timber continue at the Forest Products Research Laboratory, but that it is clear that effective advice on the seasoning of timber, its economical use and its protection from pests must ultimately rest on a knowledge of the physics and chemistry of wood and on the physiology of the insects and fungi concerned.

On the question of road research, Sir Ian Heilbron's report states that the Road Research Board has appointed a committee to advise on research on the economics of the construction and use of roads, and studies have begun on materials and on the cost of operating traffic, taking into account such factors as gradients, traffic delays and cost of accidents. Other investigations are likely to provide answers to such questions as whether, in a particular case, it would be more economical to widen an existing road or make a new by-pass. Tests have also been carried out with road surface dressings and the results are being incorporated in a Code of Practice and in a British Standard Specification. Investigations were made into the time required to spread chippings. In one job on a trunk road a rate of 230 sq. yds. per man hour was attained without fatigue over a period of six hours by a team of 11 men—about 40 per cent. better than the best rate previously recorded by the Road Research Laboratory.

Building Research Station

During the year the work of the Chief Scientific Adviser's Division of the Ministry of Works on user requirements and the economics of building has been transferred to the department, under the Director of Building Research. Much of this work supplements that of the Building Research Station; other parts, particularly that concerned with user requirements, cover common ground, although the emphasis in the Ministry's work has been on the sociological aspects and in the station's work on the physical aspects. Although the conduct of all building research is now the responsibility of the department, the application of the results remains the concern of a number of departments, particularly the Ministry of Works.

Particularly welcomed has been the close collaboration that has grown up between the Building Research Station and designers, often from the start of important projects, which has enabled the influence of science to be brought to bear at the time when it could be most effective.

Publicity.—One of the biggest publicity campaigns organised by the department last year drew attention to the damage caused to buildings by dry rot and vigorous steps were taken to make available advice on methods of curing and preventing it.

Summary of Work

We take the following extracts from the summary review of the work carried out in research organisations of the D.S.I.R.

The number of inquiries received on building and civil engineering problems is now approximately 6,000 per year. Over half of these inquiries come from technical advisers of various kinds (architects, surveyors, engineers and industrial consultants); the remainder come mainly from contractors, clients of the building industry, manufacturers of building materials, and students.

Development of Building Materials.—The time-lag between initial development and use on a considerable scale of new building materials is probably a good deal longer than occurs in other comparable industries. Buildings have to last a long time, and, to protect their customers, designers and builders have to make sure that repairs and maintenance generally will not become excessive with time. This is one of the reasons for the time-lag, because experience has shown that there is no simple routine of accelerated tests to which any or all materials can be submitted; each different type has to be studied separately.

Observations on the weathering of materials are being co-ordinated by bringing together a number of exposure tests on to a single site. Here, continuous records of the temperature and moisture content of brick and stone built in the test walls will be made to secure, for example, precise information on the conditions under which freezing occurs. A similar site with similar facilities has been provided at the Scottish Laboratory, and correlation of the observations at the two sites with standard meteorological data should assist in the development of an artificial freezing test that will be less unreliable than those hitherto used.

Lightweight Concrete.—The work carried out on a lightweight concrete affords a good example of the line of approach followed by the Building Research Station in its studies of building materials. Work recently completed or still in progress includes the operation of a pilot plant to study means of improving the furnace ashes from power stations to make a more reliable aggregate for clinker blocks and to assess the economics of the process, and a pilot survey of a cross section of the concrete block-making industry to help to ascertain the most economical way of making blocks. In addition, thanks to the valuable assistance of the Economic Co-operation Administration, a survey has been made of American practice and trends in lightweight concrete manufacture and use. A long programme to provide basic data on the properties of aerated concrete and to provide working recommendations on how best to make the material has also been completed.

Corrosion in Steel-Framed Houses

A survey was made, in collaboration with the Ministry of Works, the Chemical Research Laboratory and the Paint Research Station, of corrosion in steel-framed and steel-clad houses erected in 1920-27, with particular reference to the efficacy of the protection afforded by the treatments applied to steel framing within cavity walls, and with the object of assessing the requirements for future construction.

A survey of building sands has continued in collaboration with the Ballast, Sand and Allied Trades Association. Further co-operative research has been carried out with the British Cast Concrete Federation, and the Cast Stone and Concrete Federation, and laboratory tests have been made for the Scottish Council to assess the suitability of certain Scottish limestones for the production of lime. Comparative tests in collaboration with eleven other laboratories have been made on the crushing strength of standard cement mortar cubes to study the performance of the vibration machines now in use. In spite of differences in the design of the machines, the variation in the cube test has been found to be much less than in the tensile strength test formerly employed. Other subjects of investigation include the cleaning of buildings, the efficiency of material as damp courses, the effect of calcium chloride additions to concrete on the corrosion of reinforcement, the painting of plaster, flooring materials, building boards, and the high temperature chemistry of silicates occurring in cements and other materials.

The use of welded rigid joints in steel-frame building permits an all-round economy in steel, but it also introduces difficulties in design. With rigid joints no single member of the frame can be designed by traditional methods independently of the remainder, and it is commonly supposed amongst engineers that the design of such a structure by elastic methods is exceedingly complicated. For some years the Station has been investigating the possibility of speeding up the procedure without losing accuracy and without sacrificing economy. Modern methods of analysis have been used, which have eventually led to a purely graphical method of design, devoid of mathematical analysis, and sufficiently speedy for the designer-draughtsman. The time required to select the section of any member is but a small fraction of the total designer's time, and it is claimed that up to

20 per cent. of steel can be saved thereby. The proposed methods will deal with irregular conditions and are immediately applicable to large buildings.

It still remains a necessity, however, to study the actual behaviour of a frame in a complete building. Tests are being carried out at the moment at the new Government offices in Whitehall to invesigate the stresses which occur in practice. These are to be supplemented in the laboratory by controlled tests to study the composite action of steel beams, concrete encasement, brick panel walls (with and without openings) and to study the importance of workmanship in this connection. It is hoped that this rational approach to the problem will result not only in the correct usage of the steel frame, but will result in the maximum possible economies. So far, the results have been very encouraging.

Concrete Quality.—The efficiency of structures of pre-stressed concrete, shell roof construction, and reinforced concrete in general, depends not on the steel alone, but also on the quality of the concrete used in association with it. If full advantage is to be taken of new techniques such as prestressing, the concrete must be of high strength and of uniformly good quality. A special study has therefore been made of the practical problems associated with the control of concrete quality. Observations have been made on a number of sites where concrete construction work has been in progress and an assessment made of the degree of variability of the concrete and the reasons for it.

Soil Mechanics and Foundations.—The laboratory and field research in soil mechanics during the year has been mainly concerned with foundation problems in connection with clay shrinkage; a study of the bearing capacity of soils in relation to foundations for large structures; excavations in difficult ground and the stability of earth slopes.

One of the main problems in connection with foundations for large structures is the estimation of the load bearing capacity of the soil. On the theoretical side a general theory of bearing capacity has been developed for foundations of all types, including footings and piles. A series of model loading tests has been carried out in the laboratory on various types and depths of foundations in typical soils and some full-scale tests have also been made. The results obtained so far show promising agreement with the proposed theory. In addition, the study of the settlement of structures has also been continued. The estimated settlements of a new large Government office block in Whitehall are being checked by observations with a special water levelling system.

Ventilation

Methods have been developed for measuring ventilation in the houses used for the domestic heating studies without interfering in any way with the occupants. A mixture of air and tracer gas (helium) is introduced from outside into any room through a small-bore copper tube, fitted with jets at frequent intervals, along the skirting board of the room. A sample of the air is extracted through another tube where the concentration of the tracer is measured and then recorded in a central recorder hut, which also contains the pumps required and the electrical equipment for controlling the entrance of the helium into individual rooms. The equipment can measure the air-change in any room and, by making the initial concentration equal in all rooms, the air-exchange rate between the house and the outside, or alternatively it can measure the rate of heat loss by ventilation by making initial concentrations proportional to the difference between room and external temperatures.

Sound Insulation and Acoustics.—Full-scale sound insulation measurements have been continued in the block of experimental flats at Abbots Langley in which promising laboratory treatments for reducing sound transmission through walls and floors have been worked out in terms of ordinary building practice. The stage has now been reached when the insulation provided by many practical types of construction can be predicted with some degree of accuracy, and any further considerable advance in the subject must come from basic research and a detailed study of the various stages by which sound is transmitted through a building.

Colour Schemes.—It is now realised that colour schemes for factories should not be chosen simply as a decoration, but that properly used they can make work easier by reducing visual strain. The Station has prepared a number of schemes for factory managements based on an examination of the nature of the work involved and of the problems of maintenance, and they form a direct application of the experimental work on lighting and vision.

Building Operations

The decision to transfer the research previously carried out by the Scientific Adviser's Division of the Ministry of Works to the Building Research Station has already been referred to. Much of this work is directed primarily towards the study and improvement of building productivity. During the past year, before and since the transfer on April 1, 1950, many useful contributions have been made both on the general quantitative appreciation of the productivity problem and into the use of new and improved building tools.

Another example of important work carried out before the transfer to the Building Research Station is the analysis, based on observations of over 800 houses, of the cost of concreting house foundations and ground floors. This showed that by mechanising the operation it would be possible to effect a saving of about 50 per cent. in this cost and at the same time to increase the output of the concrete mixing machines by about 30 per cent.

Composite Wood.—One series of long-term weathering tests on plywood adhesives has been carried out over a period of two years, and all but the most durable types of glue have now been eliminated.

Industrial inquiries have disclosed that distortion of plywood during manufacture is not uncommon, and an investigation into its causes has begun. The variables are first being examined in small boards, and factors which seem of importance will be re-examined on the commercial size. The studies on cracking and splitting both of decorative veneers and of plywood exposed to the weather continue, and to these has been added work on the effect of films of plastic or of paper in protecting the plywood.

A major task of the year has been the evolution of a yield-measurement scheme for assessing quantitatively the suitability of any species for plywood manufacture.

OFFICIAL NOTIFICATIONS

Import of Granite from Finland

The Board of Trade announce that they are prepared to receive applications for the importation of worked granite from Finland, following the conclusion of Anglo-Finnish trade discussions. Applications for licences to import such worked granite should be made on form ILB/A to the Import Licensing Branch, Board of Trade, Romney House, Tufton-street, London, S.W.1, not later than April 26, next.

Applicants who were granted similar Import Licences during 1950 must enclose with their applications a statement showing the c.i.f. value of granite imported against the licences. Applicants who did not hold licences to import in 1950 should submit with their applications evidence of firm offers from suppliers, e.g., *pro-forma* invoices. No assurance can be given that applications will be licensed in full.

Semi-Manufactures of Copper

The President of the Board of Trade has announced that the rate of export of semi-manufactures of copper and copper alloys will be limited during the next three months (from April 1) to approximately half that of the first six months of 1950. All applications will be considered on their merits, and due weight will be given to "conversion value," to the established pattern of trade and to the importance of the end use. Before June 30, a further announcement will be made about the rate of exports thereafter.

The export of semi-manufactures of zinc will be permitted only in exceptional circumstances.

Applications for export licences should be addressed to the export licensing branch of the Board of Trade, Regis House, King William-street, E.C.4.

Sulphuric Acid Prices

The Board of Trade have made an order permitting (from April 9) increases in the maximum prices of sulphuric acid. The additions are 26s. 6d. per ton on weak acid (77 per cent. H_2SO_4) and 33s. 9d. per ton on strong acid (over 84.02 per cent, H_2SO_4).

Pakistan Trade Agreement

A trade agreement between the United Kingdom and Pakistan has been signed under which United Kingdom exporters will receive preferences on certain iron and steel products, chemicals, paints and engineering products when imported into Pakistan. The text of the agreement will be available shortly from the Stationery Office.

List of Practising Architects

British Data Service, 22, Montalt-road, Woodford Green, Essex, have just issued a new edition of their Selective List of Practising Architects. The list is claimed to cover over 3,500 active architects at 2,500 separate addresses. It shows the partners in each firm, with their personal qualifications and the principal kinds of work done by each office. Government and official architects are listed together with county and borough architects and staff architects to companies. The list is set out in counties and then in town order and also has a complete alphabetical index. Changes of address, etc., occurring during the year are advised to subscribers by means of monthly amendment sheets. The subscription for the first year is £13 13s. and the renewal subscription £10 10s.

ECONOMY IN THE USE OF CEMENT

Examples of Savings in Works Carried Out by M.O.W.

THE importance of avoiding the unnecessary use of cement if the building and defence programmes are not to be impeded by shortages of this material is emphasised in a circular issued by the Ministry of Local Government and Planning. How such waste can be avoided in engineering and large-scale building is explained in an addendum to Cement Economy Memorandum P.I.31/6, issued by the Ministry of Works.

The addendum points out that the design of a concrete mix, as distinct from the acceptance of arbitrary proportions to satisfy limiting bye-law or code requirements, can lead to a saving of cement of the order of ten per cent. without a loss of compressive strength. This design involves a consideration of the grading of the aggregates, and the cement and water content, necessary to produce a concrete of maximum density and adequate workability. The degree of workability to be aimed at is closely dependent on the type of construction and the equipment available for compacting the concrete.

It is common practice, for most reinforced concrete construction, to use a continuously-graded aggregate. For mass-concrete construction in heavy foundation work, and for similar constructions where heavy internal vibration is practicable, a concrete of low workability is suitable, and for this concrete the aggregates may often be quite satisfactory with a discontinuous grading. In all cases, the careful selection of the grading most suitable for the work in hand is beneficial in reducing the voids and hence the amount of cement.

The use of discontinuous gradings, or of proportions not specifically allowed by bye-laws or codes, is dependent on preliminary trials being made, under the supervision of a competent engineer, to show that the workability and compressive strength are adequate and that segregation does not occur.

Savings Effected by M.O.W.

The following examples of work, carried out by the Ministry of Works, indicate the saving in cement attained in a few instances in actual construction, without any lowering of the minimum strength of the concrete.

A 22-ft. reinforced concrete road for heavy vehicular traffic, two miles in length, has been constructed with a saving of eight per cent. of cement on normal specification requirements by paying attention to the trial grading of fine and coarse aggregates, coupled with a strict control of the water-cement ratio and the use of surface-vibrators for compacting the concrete.

In another instance, a large reinforced concrete wind tunnel is being constructed with a "gap-graded" concrete, compacted with internal vibrators, leading to a saving of thirteen per cent. of cement; and in a further case some extensive floors have also shown a saving of thirteen per cent.

The Ministry realises that the technical questions involved will ultimately need careful consideration by those authorities responsible for building regulations, codes and standards, but it is hoped that the above examples may be regarded as precedents which can be usefully followed by all concerned with concrete construction in order that the shortage of cement may not unduly interfere with urgent work of national importance.

Quality Control

It is of course important that, when a concrete mix has been specially designed to have a required strength and an adequate workability for a certain method of compacting, the supervision of the concreting operations should be so arranged as to ensure that the specification requirements for materials, proportioning, mixing and placing are, in fact, met without lapse. The following notes are intended to give guidance on some of the precautions necessary.

(a) *Choice of materials.* All the cement for a particular construction should, wherever possible, be obtained from the same works; this, however, may often be impracticable owing to the delay involved. It is also desirable to obtain all the aggregates from the same source.

The grading of the aggregates should, in preliminary tests, be determined with reference to samples from the suppliers. Throughout the course of the work, the suppliers should be required to maintain the grading and quality of the materials as represented by the samples.

(b) *Design of mix.* Even with very good control, some variation in the quality of site concrete is unavoidable. The mix should therefore be designed* to have a strength 1½ times that required as a minimum. The design strength should be realised in preliminary tests or, if not, the proportions should be modified accordingly. The proportions (particularly the water content) finally chosen should be maintained throughout the work, unless the materials are changed, in which case further trials should be made to ensure that the mix is satisfactory.

(c) *Batching.* Aggregates should be measured by weight in approved weigh-batchers. Cement may be weighed or measured by whole 1-cwt. bags. Water should be measured by volume in calibrated tanks, or weighed. The accuracy of all measuring equipment should be checked at least every six working days and when brought into use after standing idle for more than a week, or after being transported from another place. An accuracy within one per cent. in the weights of the materials used in a batch should be aimed at.

(d) *Water content.* It is most important to maintain the correct water/cement ratio. The moisture in the aggregates should be frequently determined and allowed for. In order to reduce the variability of the moisture content in aggregates it is advisable to keep stock piles holding 1-2 days' supply, and not to use the bottom 18 in., which acts as a drain.

(e) *Works cubes.* At the commencement of the work, three samples of concrete should be taken on each of the first four days. The samples should be taken near the beginning, middle and end of the days. Three 6-in. cubes should be made out of each sample as described in B.S. Code of Practice CP 114. These should be tested at 28 days, except for the cubes from one sample on each of the days, which should be tested at seven days to give an early indication of the quality of the concrete. Should the strengths of these cubes be below the prescribed value for the works test, adjustment of the mix should be made accordingly.

Subsequently, the frequency of sampling should be decided by the concrete supervisor, having regard to the type and extent of the constructional work; however, at least one sample should be taken per week.

(f) *Supervision.* A competent person should be employed to supervise the preparation and use of concrete on the site in all its stages. He should also be responsible for recording the results of all tests on materials and on concrete test-pieces.

* Valuable guidance on the design of concrete mixes can be obtained from Road Note No. 4, prepared by the Road Research Laboratory.

DECONTROL OF SOFTWOODS

Effect on Local Authority Housing Contracts

THE Ministry of Local Government and Planning have issued a circular to housing authorities drawing attention to the Government's decision to remove control from the prices of softwoods, which took effect on March 1. The circular points out that, as has been stated by the President of the Board of Trade, timber prices have been held down for some time below cost and, quite apart from the abolition of statutory price control, substantial increases in prices would, as in the case of other raw materials, have been necessitated by the rise in costs and freights.

The Minister appreciates that this will give rise to many problems on housing contracts and will inevitably lead to considerable variations in the prices having to be paid by contractors until such time as a general level of price is established. The form of contract normally in use requires notice to be given by the contractors to the local authority of increases in prices to rank for reimbursement under fluctuations clauses. It will now be of special importance in cases where a contractor intends to seek reimbursement in respect of softwood bought at an increased price, that there should be full consultation between the contractor and the local authority before the purchase is made. The Minister suggests that the authority should at once bring this matter to the notice of all contractors who are building houses on their behalf.

The abolition of price control will bring about a revival of competition in the timber trade, the circular continues. At the tender stage for new contracts builders should be required to state their basic prices for softwood for carcassing and joinery and to submit copies of quotations from a timber merchant (or preferably more than one) accompanied by a statement that the merchant is prepared at the time of quotation to supply timber of stated quality, description and specification at the prices cited. The authority should consider the basic prices quoted in relation to the respective tenders and the possible effect on final costs of any necessary adjustments of such prices under fluctuations clauses. For instance, where the basic prices quoted in the lowest tender are obviously low, the adjustments on the ascertainment of final cost may result in that tender being less favourable than a higher tender with higher basic prices.

Subsequent claims for increases in buying prices should be carefully scrutinised to ensure that contractors have from time to time taken adequate steps to buy the timber as cheaply as possible.

NEWS IN BRIEF

Nairobi Clock Tower Model

The model of the Clock Tower for the new Parliament buildings, Nairobi, which was illustrated in our last week's issue, was made by the West Surrey Joinery Co., Ltd., High-road, Byfleet, and not by the company stated in our caption.

Control of Mineral Workings

A memorandum prepared by the Ministry of Local Government and Planning on "The Control of Mineral Working" has been published to explain the various Acts and Regulations on the subject in an easily understood and readily accessible form, and to give guidance to local planning authorities on how they should exercise their powers of control. The memorandum is published by the Stationery Office, price 2s.

Buildings of Special Interest

Lists of buildings of special architectural or historic interest, and which may not be demolished or altered without notice to the local planning authority, have been issued by the Ministry of Local Government and Planning in respect of the Borough of Bridport and the Urban Districts of Kirkby-in-Ashfield and Presteigne. In Bridport the buildings listed include the parish churches of St. Mary and St. Swithun and the Town Hall; in Kirkby-in-Ashfield, St. Wilfrid's Church and rectory, the manor house and village cross; and in Presteigne, St. Andrew's Church, the Lugg Bridge and Shire Hall.

Exchange of Literature

The scheme for the reciprocal exchange of literature issued by the Timber Development Association for that published by other organisations at home and abroad has had good results. The T.D.A. states that 84 research stations and kindred organisations are now taking part. The text-books and other literature which have been received in the T.D.A. library as a result of this arrangement contain valuable data and statistics, and enable the Association to disseminate more detailed information to personal and postal inquirers.

College Building Guild Proposed

After the showing of a film on the manufacture of glass at Rotherham College of Technology, recently, a proposal was put forward to form a College Building Guild. This was well supported, and a provisional committee was elected under the presidency of Mr. D. B. Jenkinson, F.R.I.B.A., to formulate a programme of meetings, films and visits for the next winter session. One of the main objects of the guild is to bring together the builders, craftsmen, professional interests, teachers and students. Mr. J. Riley, of the college building department, is the honorary secretary.

Packaging Standards

The British Standards Institution has just issued:—

(*a*) Revised edition of Section 14—Adhesive closing and sealing tapes — to B.S.1133:1950 (3s.).

(*b*) Revised edition of B.S.814:1950—Mild steel drums (light duty—fixed ends) (2s.).

(*c*) B.S.1702:1950—Mild steel drums (heavy duty—fixed ends) (2s.).

(*d*) B.S.1262:1950 Part 2—Sizes of tins for paints and varnishes (2s.); and a new edition of Section 8 of B.S.1133:1950—Wooden containers (10s. 6d.). Prices are post free from 24-28, Victoria-street, S.W.1.

Income Inquiry

The proposal by Northwich Rural Council Development Committee that tenants of their 3,000 houses should sign an undertaking authorising employers to state whether workmen were receiving below £650 a year, between £650 and £1,000, or more than £1,000 a year in order that the authority would be able to adjust the rents according to the salaries received, has been rescinded. The tenants will still be asked to state in which wages categories they are, but their declaration of income will not be investigated or revealed.

Council of Industrial Design

The President of the Board of Trade has appointed Sir Colin S. Anderson to be a member of the Council of Industrial Design. Sir Colin is a director of Anderson, Green and Co., Ltd., shipowners; chairman of the Royal College of Arts; president of the Design and Industries Association; a member of the Arts Panel of the Arts Council; a member of the council of the Institute of Naval Architects; and past-president of the Chamber of Shipping. Mr. Wilson has also reappointed Mrs. Helen C. Bentwich, Professor Robin Darwin, Mr. Cyril Dee, Sir Kenneth Lee, Bart., Mr. R. A. Maclean, and Miss Audrey Withers to be members of the Council. Mr. Maclean is also reappointed chairman of the Scottish Committee of the Council.

Wandsworth Jubilee Guide

An excellent official guide to Wandsworth, the largest of the London boroughs both in size and population, has been produced to mark the jubilee of Wandsworth's existence as a borough. The guide contains interesting historical sketches of Putney, Clapham, Streatham and other areas now incorporated in the borough, and attention is drawn to old houses, churches and other buildings of interest. In addition to much other information of local affairs the guide gives brief details of a large number of buildings and places of interest in London generally.

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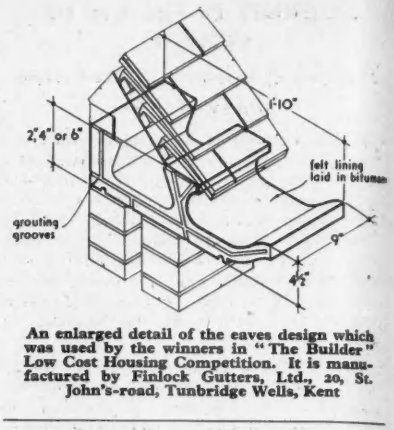

An enlarged detail of the eaves design which was used by the winners in "The Builder" Low Cost Housing Competition. It is manufactured by Finlock Gutters, Ltd., 20, St. John's-road, Tunbridge Wells, Kent

TRADE NEWS

Chestnut Fibre Hardboard

Messrs. J. Eidelman (Wallboard Department) Ltd., of 16, Devonshire-square, E.C.2, are agents only and not manufacturers of the chestnut fibre hardboard noted in our last issue.

Police Section House, Hackney

The R.I.W. Protective Products Co., Ltd., inform us that on the first (pre-war) section of this building (*The Builder*, March 23), R.I.W. No. 232 damp-resisting composition and plaster bond was applied to the internal face of the external walls (plaster being applied direct thereto) and again used on the new reconstruction.

STEEPLEJACKS' FEDERATION

Annual General Meeting

THE FIFTH ANNUAL GENERAL MEETING of the National Federation of Master Steeplejacks and Lightning Conductor Engineers was held in London on March 14 last. The following officers were elected: President, Mr. A. E. D. Beaumont (F. E. Beaumont, Ltd.); Vice-President, Mr. R. A. Price (R. C. Cutting and Co., Ltd.); Council, Mr. W. Bacon (Wm. and R. W. Bacon, Ltd.); Mr. D. Campbell (J. W. Gray and Son, Ltd.); Mr. R. Gibbons (C. Wilson (Steeple Jacks), Ltd.); Mr. S. Larkins (W. Larkins); and Mr. P. C. Richardson (P. C. Richardson and Co. (Middlesbrough), Ltd.).

The main item of interest during the year was the agreement reached with the Amalgamated Union of Building Trades Workers, operative from December 4, 1950. This provided for rates of wages over the building industry craftsman's hourly rate of: 1s. for steeplejacks; 6d. for steeplejack's mate; and 9d. for lightning conductor fitter, and 3d. for lightning conductor fitter's mate (when using steeplejack gear). For lightning conductor fitters and mates not using steeplejack gear the rates are those payable in the electrical contracting industry.

A guaranteed week of 44 hours, without deduction for public holidays, lodging allowances, and travelling expenses, was also agreed.

Central Land Board's New Offices

The offices of the Central Land Board and War Damage Commission for the Northern Region have moved to Government Buildings, Kenton Bar, Newcastle-on-Tyne 3. Telephone: Newcastle 25121.

RATES OF WAGES IN THE BUILDING TRADE [AS FROM MARCH 5, 1951]

(Every endeavour is made to ensure accuracy, but we cannot be responsible for errors)

KEY TO SCHEDULE OF GRADE RATES.

Grade Classification,	A	A1	A2	A3
Craftsmen	3/1½	3/1	3/0½	3/-
Labourers	2/8	2/7½	2/7	2/6½

Town.	Grade.
Aberavon	A
Aberdare	A
Abergavenny	A
Abingdon	A2
Accrington	A
Addlestone	A
Aldeburgh	A3
Aldershot District	A2
Alfreton U.D.	A
Alnwick	A1
Altrincham	A
Amble	A
Amersham	A1
Ammanford	A
Andover	A2
Ardingly	A2
Arundel	A2
Ascot	A2
Ashby-de-la-Zouch U.D.	A
Ashby Woulds U.D.	A
Ashford (Kent)	A2
Ashford (Middlesex)	A
Ashington	A
Ashtead	A
Ashton-under-Lyne	A
Aspatria and Brayton	A2
Atherstone (parts of)	A1
Aylesbury	A2
Aylesby (Yorks)	A
Aylesham	A3
Bagshot	A2
Bakewell U.D.	A2
Banbury	A2
Barnard Castle U.D.	A
Barnoldswick U.D.	A1
Barnsley	A
Barrow-in-Furness	A
Barrow-upon-Soar R.D. (exc. Thrussington A2)	A
Barry	A
Basford R.D. (exc. Willough-by-on-the-Wolds A2)	A
Basingstoke	A2
Bath	A
Batley	A
Baxterley	A1
Beaconsfield & District	A1
Beamish	A
Bearl	A
Bearpark	A
Beccles	A
Bedale R.D.	A2
Bedford	A
Bedlington	A
Bedwas	A
Beeston & Stapleford U.D.	A
Belper U.D.	A
Belton	A
Berkhamsted	A
Berrington	A
Berwick District	A1
Beverley	A
Bexhill-on-Sea	A
Biggleswade	A2
Billericay	A2
Billing	A
Billingham U.D.	A
Bilsthorpe	A
Birchington	A
Birkenhead	A2
Birmingham C.B.	*
Bishop Auckland	†A
Bishop's Stortford	A
Bispham	A
Blackburn	A
Blackpool	A
Blackwell R.D.	A
Blaydon U. D.	A
Blidworth	A
Blyth	A
Bognor Regis	A
Boldon U.D.	A2
Bolsover U.D.	A
Bolton	A
Bourne End	A
Bournemouth District	A1
Bracknell	A1
Bradford	A2
Bradford-on-Avon	A
Braintree	A2
Breconshire, County of	‡A2
Brent Knoll	A2
Brentwood	A
Bridlington	A
Brierfield	A
Brighouse	A
Brighton	A
Bristol	A1
Broadstairs	A
Bromsgrove U.D.	A2
Brough	A
Broughton (Cheshire)	A
Buckley	A
Bungay	A3
Burnham-on-Crouch	A3
Burnley	A
Burton-on-Trent C.B.	A
Bury	A
Bury St. Edmunds	A3
Buxton	A1
Byfleet	A1
Calder Valley	A
Cambridge	A
Cannock U.D.	A
Canterbury	A2
Cardiff	A
Cardiganshire, County of	‡A2
Carlisle	A
Carmarthenshire, Cnty.of	‡A2
Carnarvonshire, Cnty of	‡A3
Carnforth	A
Castleford	A
Caterham	A
Chapel-en-le-Frith	A
Charmy Down	A1
Chatham & District	A
Cheadle (Staffs) R.D.	A1
Chelmsford	A
Cheltenham	A
Chepstow	A1
Chertsey	A1
Chester	A
Chesterfield M.B.	A
Chesterfield R.D.	A
Chester-le-Street U.D.	A
Chichester	A
Chippenham (inc. Chippen-ham Within and Harden-huish)	A2
Chorley	A
Clacton	A1
Cleethorpes	A
Clevedon	A1
Cleveleys	A
Clitheroe	A
Coalville U.D.	A
Cobham (Surrey)	A
Colchester	A
Colne	A
Colwyn Bay	A1
Congleton	A1
Consett	A
Conway	A
Cornwall, County of	‡A2
Coventry C.B.	A
Cranbrook	A2
Cranleigh	A2
Crawley (Sussex)	A2
Crewe	A
Cromer	A1
Crowborough	A2
Cuckfield	A2
Dalton-in-Furness	A
Darlington District	A
Darwen	A
Deal	A2
Denbigh Town	A2
Derby C.B.	A
Devizes	A2
Devon, County of	‡A2
Dewsbury	A
Didcot	A2
Diss	A3
Doncaster C.B.	A
Dorking	A1
Dorset, County of (except-ing Poole and Wimborne A1)	A2
Dover	A2
Dovercourt	A1
Driffield U.D.	A1
Droitwich M.B.	A1
Dudley M.B.	A
Dunstable	A
Durham City	A
Eastbourne	A1
E. Glam. & Mon. Val.	A
East Grinstead District	A2
Eastwood (Notts.) U.D.	A
Ebbw Vale & District	A
Edenbridge	A2
Ely	A3
Epping	A
Exeter	A1
Fakenham	A3
Falmouth	A2
Fareham	A
Faversham	A2
Felixstowe	A1
Filey U.D.	A1
Fleetwood	A
Flint	A
Folkestone	A2
Frinton	A1
Frome	A1
Gainsborough R.D. (Mid. pt.)	A2
Gateshead	A
Gillingham (Kent)	A1
Glossop	A
Gloucester	A1
Gloucestershire, Cnty. of	‡A2
Godalming	A2
Goole M.B.	A
Gosport	A
Grantham M.B.	A
Gravesend	A1
Great Yarmouth	A
Grimsby (Yorks.)	A
Grimsby R.D. (Lincs.)	A2
Guildford District	A2
Guilsborough	A1
Guiseley	A
Halesowen M.B.	A
Halifax	A
Halstead	A2
Haresfield	A1
Harlow	A
Harpenden	A
Harrogate	A
Hartlepool	A
Harwich	A
Haslemere	A1
Hastings	A2
Hatfield (Herts.)	A2
Haywards Heath	A
Hemel Hempstead	A2
Henley-on-Thames	A
Hereford	A2
Herefordshire, Cnty. of	‡A2
Herne Bay	A2
Hertford	A2
Hexham U.D.	A
Heysham	A
High Wycombe	A
Highworth	A1
Hinckley U.D.	A2
Hitchin	A
Hoddesdon	A
Horley	A
Horsham	A2
Horwich	A2
Huddersfield	A
Hull	A
Hunstanton	A
Huntingdon (Staffs)	A2
Ilkley	A
Ingatestone	A
Ipswich	A1
Isle of Sheppey	A
Isle of Thanet	A2
Isle of Wight	A2
Jarrow M.B.	A
Keighley	A
Kendal	A
Kenilworth U.D.	A
Kettering M.B.	A
Keynsham	A
Kidderminster M.B.	A
King's Lynn	A
Kingskerswell	A2
Kingsteignton	A1
Kirkham	A1
Knaresborough U.D.	A
Knowle	A
Lancaster	A1
Leamington M.B.	A
Leatherhead	A
Leeds	A
Leicester C.B.	A
Leighton Buzzard	A
Letchworth	A2
Lewes	A1
Lichfield M.B.	A2
Lincoln C.B.	A1
Littlehampton	A
Liverpool	A2
Llandudno	*
Llanelly	A1
London	A
Long Eaton	*
Loughborough M.B.	A
Louth M.B.	A
Lowestoft	A2
Loxton	A
Luton	A2
Lyneham (Devon)	A
Macclesfield	A1
Maidenhead	A
Maidstone	A1
Maltby	A1
Maldon (Essex)	A
Malvern U.D.	A1
Manchester	A2
Manningtree	A
Mansfield M.B.	A1
March	A
Margate	A2
Market Harborough	A2
Maryport	A1
Matlock U.D.	A
Melksham	A1
Melton Constable	A2
Melton Mowbray U.D.	A3
Merthyr	A1
Middlesbrough	A
Middleton	A
Middlewich	A
Milford Haven	A
Morecambe	A2
Morley	A
Mundesley	A
Nantwich	A2
Nelson	A
Newark-on-Trent R.D.	A
Newbury	A1
Newcastle-on-Tyne	A2
Newcastle-under-Lyme	A
New Forest District	A
Newmarket	A1
Newport, Mon.	A1
Newport Pagnell	A
Newton Abbot	A2
Northallerton Dist.	A1
Northampton C.B.	A
North Shields	A
Norton Radstock	A
Norwich	A1
Nottingham C.B.	A
Nuneaton M.B.	A
Oakham U.D.	A
Oldham	A2
Ongar	A
Ormskirk	A
Ossett and Horbury	A
Oxford	A
Oxted	A
Paignton	A1
Peterborough	A
,, Soke	A1
Pickering	A
Plymouth	A3
Pontefract	A
Pontypridd District	A
Portishead	A
Portland Stoneyards	A
Portsmouth	A
Port Talbot	A
Preston	A
Pudsey	A
Pulborough	A2
Radnorshire, County of	‡A2
Ramsgate	A2
Rayleigh	A
Reading	A
Redcar B.	A
Redditch U.D.	A
Redhill and Reigate	A
Ripon	A3
Rochdale	A
Rochester	A1
Rotherham	A
Rugby M.B.	A
Saffron Walden	A2
St. Albans	A
St. Helens	A
St. Neots	A2
Salisbury City	A2
Salisbury Plain	A2
Sawbridgeworth	A
Saxmundham	A3
Scarborough	A
Scunthorpe	A
Selby	*
Sevenoaks	A1
Sheerness	A2
Sheffield	A
Shipley	A
Shoeburyness	A
Shoreham	A1
Shrewsbury M.B.	A
Sittingbourne	A2
Skegness U.D.	A1
Skipton U.D.	A1
Sleaford U.D.	A2
Slough	A1
Smethwick C.B.	†A
Snettisham	A2
Somerset, County of	‡A2
Southampton	A
Southend-on-Sea Dist.	A
Southport	A
South Shields C.B.	A
Spalding U.D.	A
Stafford M.B.	A2
Staines	A
Stamford M.B.	A
Stantonwick	A1
Stevenage	A
Stockport	A
Stockton R.D.	A
Stockton-on-Tees	A
Stoke-on-Trent C.B.	A
Stoke Orchard	A
Stourbridge M.B.	A1
Stourport U.D.	A
Stowmarket	A
Stratford-on-Avon M.B.	A3
Sunderland District	A1
Sunningdale	A
Sutton Coldfield M.B.	A1
Swaffham	A
Swanage	A3
Swansea	A2
Swindon	A
Swinton U.D.	A1
Tamworth M.B.	A
Tenterden	A
Tewkesbury	A2
Thames Haven	A1
Thetford	A
Thorpe Bay	A3
Thurrock U.D.C. Area	A
,, North of, to Billericay	A
Tilbury	A
Todmorden	A
Tonbridge	A
Torquay	A1
Totnes	A1
Trowbridge	A1
Tunbridge Wells	A2
Tynemouth C.B.	A1
Uppingham (Salop)	A
Uttoxeter U.D.	A1
Wakefield	A2
Wallsend B.	A
Walsall C.B.	A
Walsden	A
Walton-on-Naze	A
Ware	A1
Warminster	A
Warrington	A2
Warwick M.B.	A
Wellington R.D.	A
Wells (Norfolk)	A1
Welwyn	A3
Welwyn Gar. City	A
West Bromwich C.B.	A
Westbury	A
Westcliff-on-Sea	A2
Westerham	A
Weston-super-Mare	A1
Weybridge	A
Weymouth	A
Whitby U.D.	A1
Whitstable and District	A1
Wickford	A2
Widnes	A
Wigan	A
Wigton	A
Willington	A3
Wilmslow	A
Wilts. County of	‡A2
Winchester	A
Windermere	A1
Windsor and Eton	A3
Wisbech	A1
Witham	A2
Woking (District)	A1
Wokingham	A1
Wolverhampton C.B.	A2
Woodbridge	A
Worcester C.B.	A3
Workington	A
Worksop M.B.	A
Worthing	A
Wrexham (incl. Cefn)	A2
Wroughton	A
Wylam	A2
Wymondham	A
York	A3
	A

* For Birkenhead, Liverpool, and London the rates are :—Craftsmen, 3s. 3d.; Labourers, 2s. 9½d. In the case of London the rate beyond the 12-mile radius is :—Craftsmen, 3s. 2½d. Labourers, 2s. 9d.

† Plus 2d. per working day.

‡ This is the County rate and applies except where higher grades are stated.

NOTE.—Carpenters, Joiners and Plumbers in all towns and districts receive 2d. per day Tool Allowances.

WOMEN'S RATES.—In all districts throughout the country the rate of wages for women engaged in craft processes is 2s. 1d. per hour. Women introduced to carry out work other than craft processes, 1s. 9d. per hour.

For Building Trade Wages in Scotland see page 500.

PRICES CURRENT OF MATERIALS*

NOTE.—These prices apply to large quantities of materials at works at London stations, or site, in London area as stated. Prices for smaller quantities ex merchant's warehouse will, of course, be higher. Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, Etc.

	£ s. d.
First Hard Stocks	9 18 6
Second Hard Stocks	9 8 6
Mild Stocks	8 3 6

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.

2½-in. Nominal Phorpres Bricks.	At Maiden Lane Stn., per 1,000	To Sites in W.C. District per 1,000
	s. d.	s. d.
Commons	84 0	96 0
Cellular (No del. at present Lon. Stns.)		96 0
Keyed	86 0	98 0
Cellular Keyed (No del. at present Lon. Stns.)		98 0
Rustics	109 0	121 0
Cellular Rustics (No del. at present Lon. Stns.)		121 0
Single Bullnose	104 0	116 0
Sandfaced	124 0	136 0
Cortex Facing Brick ...	99 0	111 0

	£ s. d.
Best blue Pressed Staffs. (London Stns.) ...	20 17 0
Do. Bullnose (London Stns.) ...	21 10 0
Blue Wire Cuts (London Stns.)	18 13 6
Midhurst Lime Bricks (Del. London Sites)	8 12 6
Uxbridge Whites (Del. London Sites) ...	6 16 0

Best Stourbridge Fire Bricks (London Stns.):—

£ s. d.	£ s. d.
2½ in. ... 17 11 3	3 in. ... 21 2 0

GLAZED BRICKS (London Stns.). The prices given below are now subject to a percentage addition of 42½ per cent. for Best, and 37½ per cent. for Second quality.

Best White Ivory and Salt Glazed		D'ble Stretchers	53 10 0
		D'ble Headers	48 10 0
Stretcher	40 0 0	One side & two ends	54 10 0
Headers	39 10 0	Two sides & one end	56 0 0
Quoins, Bullnose & 4½ in. Flats	50 0 0	Splays and Squints	52 0 0

Second Quality, £2 0s. per 1,000 less than best. Cream and buff. £2 0s. extra over white. Other colours, Hard Glaze, £5 10s. 0d. extra over white.
Haulage to site 20s. 1,000.

PARTITION SLABS.

Delivered Central London Area.
HOLLOW CLAY PARTITION BLOCKS.
London Brick Company.

Minimum Lorry Loads. Keyed	s. d.
2 in. per yd. sup. 125 yds.	3 10
2½ in. „ „ 115 „	4 1
3 in. „ „	4 7
4½ in. (3 cavity) per yd. sup. 80 yds. ...	5 11
4½ in. (6 „) „ „ 75 „ ...	6 6

Half blocks *add* 2s. per yard super to above prices.
CLINKER *CONCRETE.

2 in. per yd. sup.	2 9	3 in. per yd. sup	3 9
2½ in. „ „	3 3	4 in. „ „	4 9

J. H. Sankey and Son. "Cranham"

2 in. per yd. super	4 9
2½ in. „ „ „	5 2
3 in. „ „ „	6 0
4½ in. „ „ „	7 9

Delivered site London.

STONE.

	s. d.
BATH STONE—	
Monks Park	5 11
St. Aldhelm Box Ground	6 11
Deljvered in railway trucks at South Lambeth. G.W.R., per ft. cube.	
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly. ... ... per ft. cube	6 8½
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ¼d. beyond 30 ft.	
HOPTON-WOOD STONE—	
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks up to 3 ft. 3 in. long and not over 10 cu. ft. ... ... per ft. cube	22 6
Slabs—Random sizes sawn 2 sides, up to 5 ft. long and not over 15 ft. super ¾ in. per ft. super	4 7
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) ... ... per ft. super	10 0
6 in. rubbed two sides, ditto „ „	11 6
3 in. sawn two sides slabs (random sizes) ... ... „ „	4 9
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) ... „ „	2 7
1½ in. to 2 in. ditto ... ... „ „	2 4½
HARD YORK—	
Delivered at any Goods Station, London	
Scrappled random blocks per ft. cube	14 4
6 in. sawn two sides landings to sizes (under 40 ft. super) ... ... per ft. super	10 11
6 in. rubbed two sides, ditto ... „ „	12 9
4 in. sawn two sides slabs (random sizes) ... ... „ „	6 11
3 in. ditto ditto ... ... „ „	5 2
2 in. self-faced random flags per yd. super	20 9

CEMENT.

	£ s. d.
Best British Portland Cement. Standard Specification delivered Charing Cross area.	
6-ton loads and upwards site .....per ton	4 5 6
1- to 6-tons site (including non-returnable paper bags or jute sacks)	4 10 6
"Ferrocrete" Rapid Hardening Cement at 6-ton loads and upwards site	4 11 6
1- to 6-tons site (including non-returnable paper bags or jute sacks)	4 16 6
"Aquacrete" Water Repellent cement, 31/6 per ton on ordinary "Blue Circle" prices (including non-returnable paper bags).	
Red, Buff or Khaki "Colorcrete" in 6-ton lots (including non-returnable paper bags)	6 7 0
Other colours, according to colour. In 4-ton lots from 180/– to 404/– per ton (including paper bags).	
"Snowcrete" White Portland Cement (including non-returnable paper bags).....	12 3 0
Under one ton .....per cwt.	14 8
"417" Cement (Ultra Rapid Hardening) Delivered Site London Area in 6-ton lots and upwards (including non-returnable paper bags)	5 8 0
Super Cement (Waterproof) in London Area 31/6 per ton above Portland Cement, including bags.	
Cullamix Tyrolean Finish, £8 2s. 6d. to £9 16 0 (1-ton lots and upwards, including cost of paper bags).	
Lightning Brand. High aluminous cement, 1 ton lots and up 247/6 per ton, packages 13/6 per ton extra.	

	£ s. d.		£ s. d.
Parian Cement	8 12 3	Keen's Cement, White ...	8 12 3
		Pink.. ...	8 6 9

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	5 17 0	Sirapite Coarse	6 0 3
„ White	6 5 0	„ Finish	6 8 3

Above prices for 1-ton loads and over London Area.

Blue Lias Lime, inc. bags 6-ton lots ...	5 17 6	Hydrated Lime 6-ton lots ...	4 18 6
Granite Chips, 6-ton lots ...	2 3 0	Lump, Lime, 6-ton lots ...	4 4 0
		Hair, per cwt.	4 4 6

Stourbridge Fireclay in paper bags £4 2s. 0d., 6-ton lots at railway depot.

ROOFING

Prompt and careful attention is a feature of the Boddy Roofing Service which embraces every type of Roofing work.

ASBESTOS STRIPPING and RE-COVERING SLATING AND TILING ETC.

A Technical Staff is always available for consultation with Architects, Builders and all concerned with Roof Construction and Maintenance.

THE BODDY ROOFING COMPANY LIMITED
81 ESSEX ROAD, LONDON, N.1
Telephone: CANonbury 4281

PLASTER AND WALL BOARDS.

Gypsum Plaster Lathe or Base Board, ⅜ in. thick, 600 yds. and over in one delivery 1/11¼ sq. yd.
Gypsum Plaster Wall Boards, 3 and 4 ft. wide, 6 to 12 ft., ⅜ in. thick. 600 yds. and over in one delivery, 2/2½ sq.yd.
Carriage paid to site.

SAND.

D/D site in full lorry loads. Average of prices for Boroughs of Westminster, Paddington, Holborn and St. Pancras.

	s. d.
Thames Ballast ..... per yd.	15 9
Pit Ballast ..... „	16 0
Pit Sand ..... „	15 2
Washed Sand ..... „	17 0
¾ in. Shingle ..... „	15 2
¾ in. Broken Brick ..... „	17 6
Pan Breeze ..... „	8 6

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons..... Per 1,000
f.o.r. London

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire districts	10 5 6
Ditto, hand-made, ditto	12 2 9
Ornamental ditto	12 15 0
Hip and valley tiles—Hand-made.....	1 0 0
(per dozen)—Machine-made	0 19 0

NOTE.—Breakage in transit, purchasers' responsibility.

SLATES.

First quality slates from Penrhyn or Portmadoc carriage paid in full truck loads to London Rate Station.

Per 1,000 actual	£ s. d.		£ s. d.
24 by 12	80 10 0	18 by 10	41 7 6
22 by 12	70 0 0	18 by 9	37 0 0
22 by 11	63 5 0	16 by 10	36 17 6
20 by 12	58 12 6	16 by 8	28 7 6
20 by 10	52 18 0		

NOTE : Breakage in transit, purchasers' responsibility.

PLUMBERS' BRASS WORK.

Delivered in London.
M.O.H.
S.D. BIB COCKS CRUTCH HEAD, FOR IRON.
½ in. 86/3 ¾ in. 108/– per doz.
TOILET BIB COCKS FOR IRON.
½ in. 135/– ¾ in. 182/6 per doz.
S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	2 in.
86/–	120/–	180/–	368/–	548/– 941/– per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
124/–	165/–	263/–	488/–	703/–	1253/– per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
26/–	32/–	55/–	83/–	128/–	202/– per doz.

HEAVY CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
135/–	163/–	315/–	533/–	694/– per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
26/–	30/–	45/–	89/–	116/–	124/– per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
31/–	42/–	72/–	87/–	109/– per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½ x 6 lb.	1½ x 6 lb.	2 x 7 lb.	3 x 7 lb.
Lead P.	84/–	105/–	186/–	291/– per doz.
Lead S.	102/–	126/–	201/–	387/– per doz.

SOLDER.—Plumbers' 4/3, Tinmen's 5/6, Blow pipe 5/– per lb.
Copper Tubes .....1/11½ per lb. Basis.
Brass Tubes .....1/9 per lb. Basis.
Basis prices are subject to extras.

GLUE.

	£ s. d.
Best Scotch Glue ..... per ½ cwt.	4 9 9
Croid Glue ..... 28 lb.	2 0 0

VARNISHES, Etc.

		Per gallon.
Oak Varnish	Outside	1 14 0
Fine do.	„	1 14 0
Fine Copal	„	1 14 0
Pale Copal	„	1 16 0
Floor Varnish	Inside	1 14 0
Fine Pale Paper	„	1 18 0
Hard Drying Oak	„	1 14 0
Fine Hard Drying Oak	„	1 15 0
Fine Copal Varnish	„	1 16 0
Best Do.	„	1 16 0
Best Japan Gold Size	„	1 8 0
Best Black Japan	„	1 4 0
Brunswick Black		1 0 0
Berlin Black		1 8 0
Knotting (patent)		1 17 0
French and Brush Polish		1 9 0
Liquid Dryers in Terebene		1 8 0

* The information given on these pages has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(con d.)

See Note at top of preceding page.

PAINTS, Etc.

		£	s.	d.
Raw Linseed Oil (5 galls.)	per gallon		16	8
Boiled Linseed Oil (5 galls.)	"		17	1
Genuine White Lead (free kegs)	cwt.	9	3	6
Genuine White Lead Paint (tins free)	gall.	2	9	0
Genuine Red Lead	cwt.	9	12	6
Putty (free packages)	cwt.	2	10	0
Size XD quality	fkn.		8	0

Turpentine substitute can be obtained and prices vary according to quality from 3/10 gallon upwards.

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION.	PER TON		
R.S. Joists, cut and fitted	£35	0	0
Plain Compound Girders	£40	0	0
" " Stanchions	£48	0	0
In Roof Work, Trusses and Purlins	£60	0	0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS. — Ex London Stock per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
½ in.	31	3	0	¼ in.	28	18	0
⅝ in.	30	8	0	⅜ in. to 2⅜ in.	28	3	0
⅞ in.	29	13	0				

W.I. TUBES.

TUBES AND TUBULARS.

Galv. Class A.	List price, less	12½	per cent.
" " B.	" "	7½	"
" " C.	" Net.		
Black, " A	" less	33	"
" " B.	" "	22½	"
" " C.	" "	15	"

C.I. HALF-ROUND GUTTERS.—London Prices ex-Works, per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	2/6	2/2	7d.
3½ in.	2/9	2/6	7d.
4 in.	2/10	2/8	1/-
4½ in.	3/3	3/1	1/2
5 in.	3/6	3/4	1/4

O.G. GUTTERS.

3 in.	3/3	2/11	9d.
3½ in.	3/7	2/11	1/-
4 in.	3/7	3/1	1/2
4½ in.	3/10	3/6	1/4
5 in.	4/8	4/1	1/5

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Angles.	Branches.
2 in.	5/1	2/8	3/11
2½ in.	5/5	3/1	4/8
3 in.	6/-	3/10	5/8
3½ in.	6/10	4/6	6/7
4 in.	7/11	5/5	7/11

NET PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES.—London Prices, ex-stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	6/2	4/8	5/8
2½ in.	6/5	5/3	7/-
3 in.	7/2	5/8	8/6
3½ in.	8/-	7/-	9/9
4 in.	9/2	7/11	11/5

L.C.C. COATED DRAIN PIPE.

	cwt. qr. lb. per yard. in 9 fts.	Bends.	Branches.
4 in.	1 1 17	16/8	11/8	20/5
6 in.	2 0 1	24/11	24/2	41/11

	Per ton basis in London. £	s.	d.
IRON.—Staffordshire Crown, Merchant quality	29	5	0
IRON.—Staffordshire Marked Bars	38	0	0
Mild Steel Bars	26	3	6
Mild Steel Hoops	27	11	0

	Ex-Merchant's Stock per ton (two-ton) lots. £	s.	d.
Soft Steel Sheets C.R. and C.A.—			
20-gauge	32	5	0
24-gauge	33	10	0
26-gauge	34	10	0
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—			
20-gauge	45	8	0
24-gauge	47	8	0
26-gauge	50	3	0
Galvanised Flat Sheets, C.R. and C.A.—			
20-gauge	46	8	0
24-gauge	48	8	0
26-gauge	51	3	0

	Per ton. £	s.	d.
Cut Nails, 3 in. and up, 1 ton lots	41	15	0

ALL NET.

METAL WINDOWS.—Standard Metal Windows B.S. 990. Prices on application. British Metal Window Manufacturers' Association, Ltd.

LEAD, Etc.

(Deliveries in London, 5 cwts.)	Per ton. £	s.	d.
LEAD.—Sheet, English, 3½ lb. and up	156	5	0
Pipe in coils	157	10	0
Soil pipe	167	10	0
Compo pipe	171	0	0

NOTE.—Country delivery, 10s. per ton extra, lots under 3 cwt., 4s. per cwt. extra and over 3 cwt. and under 5 cwt., 3s. per cwt. extra. Extra if cut to size. Old lead, ex-London area, per ton, £95 0s. 0d. Buyers pay carriage.

GLASS.

SHEET GLASS. ORDINARY GLAZING QUALITY.

CUT SIZES.	Per ft. Super. d.
18-oz.	4½
24-oz. clear	5⅝
26-oz.	7½
32-oz.	9½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft.
Rolled plate, ¼ in.	7½
Rough cast, 3/16 in.	8½
Rough cast, ¼ in.	8½
Figure rolled, and Cathedral white	7½
Figure rolled, and Cathedral tinted	10½
Rolled sheet	6
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ⅛ in. thick	9½

	d.	
Wire cast, ¼ in. thick	9½	Per ft.
Georgian Wired Cast	10	"

HOLLOW GLASS BLOCKS.

	s.	d.	
P.B. 2—5½ in. x 5½ in. x 3⅛ in.	2	6	each net.
P.B. 3—7½ in. x 7½ in. x 3⅛ in.	3	10	"
P.B. 32—7½ in. x 7½ in. x 3⅛ in.	3	10	"

Radiused Corner Brick to match up with—

P.B. 2	4	6	"
P.B. 3	6	0	"
P.B. 32	6	0	"

TIMBER, SOFTWOODS and HARDWOODS.

SOFTWOOD.

Carcassing £ 0/—105 per Standard.
Joinery. £ 20 " "

HOME GROWN TIMBER PRICES.—*See Statutory Rules and Orders*, 1947. No. 94, price 5d. net.

IMPORTED SOFTWOODS PRICES.—*See Statutory Rules and Orders*, 1949, No. 1073, price 1s. 1d.

IMPORTED HARDWOODS PRICE.—*See Statutory Rules and Orders*, 1947, No. 1524, price 1s. 1d. net.

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B.B.I. ANNUAL DINNER

"Improvement in Building Materials Pipeline"

SPEAKING at the annual dinner of the Builders' Benevolent Institution in London, on Tuesday, MR. STOKES, Minister of Works, said he believed that the building materials pipeline was in a far better state now than it was a year ago. To isolated cries of dissention, Mr. Stokes said that his Department had provided him with figures to prove that this was so, but on such an occasion it would be tedious to produce them. The Minister added a warning that, with the rearmament programme, the demands on the building industry this year were bound to be "far more severe than ever before." Mr. Stokes was replying to the toast of H.M. Government, proposed by MR. STEPHEN HUDSON, president of the N.F.B.T.E. The Institute's president, Mr. F. N. Gee, presided.

MR. HUDSON said that nowadays the Government was probably their biggest customer, and as the customer "was always right" it did not do to tell him too often where he was wrong. The weeks ahead in Parliament were bound to be stormy, but as practical men they realised that the business of the country must continue. There was still the housing problem to be faced and grappled with, and schools had to be built for education and factories for industry. The job of the building industry was to do to the best of its ability whatever the nation required of it for its security.

Mr. Hudson said that he did believe that the building industry remained on cordial terms with the Government. His Federation did not offer advice or suggestions to the Government lightly, and when they did so they had given the matter very full consideration.

The Institute's Work

Proposing the toast of the Builders' Benevolent Institution and its president, SIR LANCELOT KEAY, K.B.E., P-P.R.I.B.A., said he wanted especially to wish the Institution good luck as its cause was something very dear to him indeed. There was no better service than looking after those who had served the building industry well all their lives. One of the things lacking in the welfare state was, he thought, proper provision for old people, and there were many builders and others associated with the industry who were in need of care in the autumn of their lives.

Sir Lancelot added that it was right and natural that the B.B.I. had widened its scope to care not only for those in the London district, but in the provinces as well. The Institute's work should commend itself to all in the building industry.

In his response, MR. F. N. GEE, president, said that the Institute's home at Twickenham was now in full swing, and was giving very great assistance to people who had fallen on evil times. It was a charming place, near the river, and was a perfect home for elderly people. He hoped that in the years to come the B.B.I. would broaden its base to help more people.

The toast of the visitors was proposed by Mr. Dudley F. Cox, president of the L.M.B.A., and was responded to by Mr. H. F. H. Grainger, vice-president, Building Industry Distributors.

With the collection made at the dinner, the president's annual appeal has now realised approximately £2,200.

The Scottish Builder

Long-Term Planning

A PLEA for long-term planning was made by MR. D. W. PLUMSTEAD, Town Planning Officer of Edinburgh, when he addressed the annual conference of the Scottish National Housing and Town Planning Council at Peebles.

Criticising the 20-year limit in Development Plans, which have to be submitted by Local Authorities to the Government by the middle of this year, Mr. Plumstead maintained that this restriction to limit proposals, even the broad and general one of zoning, cut right at the root of real town and country planning.

The Government thought that the extent or "horizon" of future possibilities should not be more than 20 years ahead for a given amount of labour and materials, likely to be available out of the nation's economy, which could be used to carry out a given programme of development, houses, factories, roads, etc. But that meant that many solutions of such problems as slum clearance and overcrowding, could only in part be included in the Development Plan because all could not be achieved in 20 years. This was supported by the contention that other developments proposed from time to time were too much interfered with when the "horizon" was extended beyond 20 years. This was because the area then controlled became so great and widespread that a general state of frustration was created.

The "Opposite View"

The opponents of the "opposite view" considered that the horizon should be kept unlimited; otherwise the limit would lose the opportunity of a continuance of improvements started in these days, because of the present-day permissions to construct expensive buildings in areas outside the pale of 20 years' vision.

In any case, total needs could be assessed accurately, but estimates of what was possible in 20 years could not. They merely became fictitious, because it was impossible to anticipate price changes and availability of labour during the foregoing years. He thought any conception, which attempted to place a limit upon proposals, ignored the fact that the provision for an assessed need for thousands of houses beyond those that could possibly be built in 20 years would be prejudiced by uncontrolled expensive buildings.

Such a limit also ignored the first requirement of any development plan: adequate global consideration. It was only from these considerations that policy concerning such questions as population overspill, absorption of agricultural land and density of development could be determined.

"It means," continued Mr. Plumstead, "that local planning authorities must close their eyes to the ultimate entity to which each fragment, possible of completion in 20 years, must inevitably belong as part of a stable community. It means that each accretion of development will follow a form of conception independent of one another, as happened before the war and ended in chaos and congestion. That is our heritage to-day, because of the lack of a broad conception possible from long-term planning related to short-term needs and possibilities."

Time and costs—20 or 50 years—should not, therefore, be the factors upon which arbitrary limits could be set to the extent of looking ahead when so many happenings, both national and international, could alter the reckoning. The limits should surely be the extent to which development should be added to an exisiting community. Arbitrary limits of time and cost were not the determinants which created the old village, or town entity, often founded upon Roman beginnings. Nor should they be the determinants in the new towns' Development Plans.

Mr. Plumstead added that in Edinburgh, as elsewhere, some comprehensive development schemes had been carried out.

In the discussion which followed, LADY RUTH BALFOUR from Glenrothes, one of Scotland's new towns, asked if Mr. Plumstead had ignored the fact that change in the future was going to be far more rapid than it had ever been in the past. "The Georgian planners did not envisage the Industrial Revolution," she said. "We cannot envisage in what way our scientific inventions will lead us. Therefore long-term planning seems to me to be entirely Utopian."

Mr. Plumstead replied that that was all the more reason for long-term planning "Development to-day is much more rapid, and the danger of permanent building in the wrong place is increased," he said.

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from Mar. 5, 1951. Every effort is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification — A Craftsmen ..... 3/1½ — Labourers 2/8

Aberdeen ..... A	Dumfriesshire ..... A	Inverness ..... A	Peterhead ..... A
Ayrshire ..... A	Dundee ..... A	Inverurie ..... A	Renfrewshire ..... A
Banff ..... A	Dunoon ..... A	Kincardineshire ..... A	Rothesay ..... A
Berwickshire ..... A	East Fife ..... A	Kinross-shire ..... A	Roxburghshire ..... A
Bridge of Allan ..... A	East Lothian ..... A	Lanarkshire ..... A	St. Andrews ..... A
Broughty Ferry ..... A	Edinburgh ..... A	Midlothian ..... A	Selkirkshire ..... A
Clackmannanshire ..... A	Fifeshire ..... A	Monifieth ..... A	Stewartry ..... A
Doune ..... A	Forfarshire ..... A	Moray and Nairn ..... A	Stirlingshire ..... A
Dunblane ..... A	Glasgow ..... A	Newport ..... A	Stornoway ..... A
Dunbartonshire ..... A	Greenock ..... A	Peeblesshire ..... A	Tayport ..... A
Dumfries ..... A	Hamilton ..... A	Perth ..... A	West Lothian ..... A
		Perthshire ..... A	

The Scottish N.J.C. award on which this is based provides for variation to current rates of Female Labour, Apprentices and Trainees' wages.

The information given in this table is copyright.

Painters' rates: 3/1 Grade A; 3/- Grade B. (Grade B towns are Banff and Moray and Nairn.)

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University Examination Hall

BUILDING is expected to commence shortly on Edinburgh University's new examination hall in Chambers-street. The building, which will cost £180,000 to erect, will be of sandstone. It will have three floors above the street level and two basements. There will be three examination rooms accommodating up to 1,000 students, a small theatre, and a picture gallery.

Since the only dependable sources of daylight for the new building were from the north and south—the site is shouldered on each side by large buildings—the architect, Mr. W. H. Kininmonth, A.R.S.A., has utilised interior partitions of glass from floor to ceiling—22 feet wide—on three floors to radiate the light.

The three examination rooms have been placed at the rear of the building on three floors to exclude noise from outside, and to lessen this still further acoustic tiles will be used on the walls. The rooms will be long and low; about 64 feet in length but only 15 feet high. To avoid the depressing effect of a long flat ceiling the architect has introduced certain patterns. In one of the ceilings a ripple effect by a series of six flat arches will be used.

Patrick Geddes' Principles

THE GREAT NEED, if aims in planning were to be clear, for a restatement and a reinstatement of the principles laid down by the late Sir Patrick Geddes, was stressed by Mr. T. F. LYON, A.R.I.B.A., Director of the Town and Country Planning Department of the Royal Technical College, Glasgow, when he delivered the first of the Patrick Geddes Memorial lectures at the Outlook Tower, Castle Hill, Edinburgh.

These principles at once formed a basic approach to the problem and a common line of action. But neither of these two essentials was very much in evidence in planning circles to-day.

NEW BUILDINGS

Edinburgh.—Warrant granted the British Electricity Authority to erect a large store at a cost of £22,500 at Fishwives-causeway, Portobello.

Grangemouth.—Plans for a £15,000 extension to the Leapark Hotel, Grangemouth, have been approved by the Dean of Guild Court. The extension will add 15 bedrooms and a lounge to the hotel.

North of Scotland Hydro-Electric Board.—Board propose to erect a generating station on the left bank of the river Oude, near its outlet into Loch Kilmelfort, in connection with the Kilmelfort hydro-electric scheme, which provides for the impounding of Loch Tralaig and Loch na Sreinge. The scheme will add 9,000,000 units of electricity annually to the power available in western Argyll.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

APRIL 7.

***†Peterborough T.C.**—76 houses at Eastfield estate. City E. & S., Town Hall. Dep. £2 2s. Tenders by April 30.

APRIL 11.

***†Bristol T.C.**—Health centre at Leinster-ave., Knowle West. J. Nelson Meredith (F.), City A., Eagle House, Colston-ave. Dep. £2 2s.

***†Eastbourne C.B.**—102 houses (nine schemes) at Chatfield estate; block of three houses at East Dean; internal painting and small adaptations. B.E., 2-4, Saffrons-rd. Dep. £2 2s. each scheme.

***†Ipswich C.B.**—12 houses at Maidenhall estate. B.S., 19, Tower-st. Dep. £3 3s. Tenders by May 3.

APRIL 12

Devizes B.C.—New market at The Wharf. J. D. Sheasby, S. & W.E., The Chequers, Devizes, Wilts. Dep. £3 3s.

APRIL 13.

***†West Sussex C.C.**—Alterations and adaptations at "Abbotswood," Rustington, Littlehampton. County A., County Hall, Chichester.

APRIL 14.

***†Essex C.C.**—Proposed area offices at Park-rd., Colchester. (Cost approx. £14,200.) H. Conolly (F.), County A.

†Littlehampton U.D.C.—12 type "D" houses at Wickbourne scheme. E. & S., Council Offices. Dep. £1 1s.

APRIL 16.

Cheshunt U.D.C.—Erection of 22 flats at Carleton-rd., Cheshunt, and eight flats at Swanfield-rd., Waltham Cross. Culpin & Son, F. & A.R.I.B.A., 3, Southampton-pl., W.C.1. Dep. £2 2s.

***Faversham T.C.**—Seventeen garages at Millfield estate. B.S., Municipal Offices. Dep. £2 2s.

***†Herefordshire C.C.**—Magistrates' court and police station, Ledbury. W. Usher (A.), County Architect, Bath-st., Hereford. Dep. £3 3s.

Keynsham U.D.C.—37 houses on Norman-rd. estate, Saltford, Bristol. E. & S. Dep. £2 2s.

Newhaven U.D.C.—20 dwellings and four shops with three flats over. E. & S. Dep. £2 2s.

Shoreham-by-Sea U.D.C.—Erection of section (1) 18 houses, and section (2) 30 houses on the Hammy-la. housing estate. E. & S., 31, John-st. Dep. £3 3s.

Stokesley R.D.C.—46 houses on eight sites. E. & S., Council Offices. Dep. £2 2s.

APRIL 17.

***Durham C.C.**—Hostel at Parkhead, Winlaton County A., Court-la., Durham.

St. Faith's and Aylsham R.D.C.—Erection of dwellings as follows: Aylsham, 14 houses; Salhouse, four houses and six bungalows; Sprowston, 10 houses. F. M. Dewing, architect, 40, Prince of Wales-rd., Norwich. Dep. £1 1s.

APRIL 18.

***†Beds C.C.**—Extension, Evelyn-rd. C.P. School, Dunstable. County Architect, Bedford.

Bolton T.C.—52 houses and flats at Roscow Fold, Breightmet. Housing Director, Town Hall, Bolton. Dep. £2 2s.

***†Malden and Coombe T.C.**—Applications invited from contractors for external decoration of houses and requisitioned properties. T.C.

APRIL 19.

North Kesteven R.D.C.—40 houses and two bungalows on various sites. J. Chadwick, Surveyor, 31, Clasketgate, Lincoln. Dep. £2 2s.

APRIL 20.

East Retford R.D.C.—22 houses and ancillary works at Mattersey. R. L. Gay, clerk, 40, Grove-st., Retford. Dep. £5 5s.

***Shepton Mallet U.D.C.**—16 houses at Ridgeway. C., Council Offices, Market-pl. Dep. £2 2s.

Wakefield R.D.C.—40 houses at five sites. E. & S., 18, St. John's North, Wakefield.

***†West Ham C.B.**—17 houses and 4 flats at Rogers-rd. area. T. E. North (F.), Boro' A. & Planning Officer, 70, West Ham-la. Dep. £2 2s.

APRIL 21.

***Durham County Police Authority.**—Two pairs of police houses at Barmoor, Crawcrooke. G. R. Clayton (F.), Architect to Police Authority, Court-la.

***†Surbiton T.C.**—46 houses at Fullers-way estate. T.C., Council Offices.

Upholland U.D.C.—12 houses on Highgate estate. J. T. Iball, Surveyor, Council Offices. Dep. £3 3s.

***Ware U.D.C.**—10 bungalows at two sites. E. & S., The Priory. Dep. £2 2s.

Wimborne and Cranborne R.D.C.—Eight houses at Cowgrove and seven at Gussage All Saints. Crickmay & Sons, architects, 7, Church-st., Wimborne. Dep. £2 2s.

APRIL 23.

***†Beddington and Wallington T.C.**—28 bungalow dwellings at Richmond-rd. T.C., Town Hall, Wallington.

***Bridgwater T.C.**—64 houses at Montacute's Field. B.E., Town Hall. Dep. £3 3s.

Hemel Hempstead R.D.C.—Erection of eight flats at Nunfield, Chipperfield. E. & S., Council Offices, No. 2, Marlowes, Hemel Hempstead. Dep. £2 2s.

Ruislip-Northwood U.D.C.—60 houses at Castleton-rd., Eastcote. E. & S. Dep. £2 2s.

***Sherborne R.D.C.**—Six "Woolaway" houses at Alweston. C., Council Offices, Greenhill, Sherborne. Dep. £2 2s.

APRIL 24.

***Gillingham Boro'.**—10 houses and pair of flats on three sites. B.E. & S. Dep. £5 5s.

APRIL 25.

***Staines U.D.C.**—81 houses at Kingston-rd., Laleham. E. & S., Shortwood House, 240, London-rd. Dep. £5 5s.

APRIL 26.

***Chesterfield R.D.C.**—Extension to cleansing depot garage, Locke Brook, Pilsley. J. B. Wikeley, E. Dep. £2 2s.

***Ealing Boro'.**—12 flats, Northolt Grange, Northolt. C. W. Seddon, B.E. & S. Dep. £2.

Newcastle-upon-Tyne T.C.—87 houses and flats on section "B" of the Fairways housing estate. City A., 18, Cloth Market, Newcastle-upon-Tyne, 1.

APRIL 27.

***†Tottenham T.C.**—Eight one-storey old persons' flats and 20 two-storey old persons' flats at Cornwall-rd. estate. B.E., Town Hall, N.15. Dep. £2 2s.

APRIL 30.

***Bournemouth C.B.**—Adaptations and extensions to "Kingsholme," 148, Richmond Park-rd. Boro' A., Room 101, Town Hall. Dep. £3 3s.

MAY 1.

***Bexley Boro'.**—Alterations and additions to mortuary, Council-yd., Bexleyheath. B.E. & S. Dep. £2 2s.

***St. Albans T.C.**—Public conveniences at Clarence Park. City E. & S. Dep. £2 2s.

MAY 2.

***†West Sussex C.C.**—Three-form Entry Sec. Mod. Sch. at Horsham (job No. 1900). County A., County Hall, Chichester.

***Widnes T.C.**—Offices, workshops and stores, Catherine-st. Boro' A., Brendan House, Widnes-rd. Dep. £1 1s.

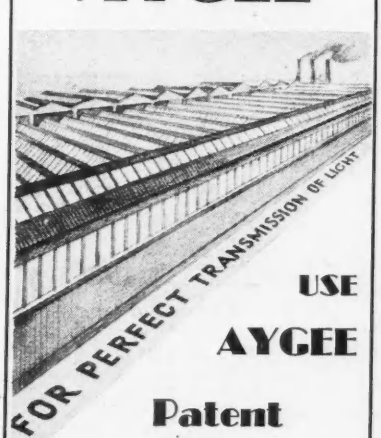
MAY 7.

***Liverpool T.C.**—Repair and decoration of Rivington Hall and various buildings. Water E., 55, Dale-st. Dep. £3 3s.

***Southport C.B.**—Extensions to Technical College, Education Office, Pavilion-bldgs., Lord-st.

Southport C.B.—Extensions to Southport Technical College, Education Office, Pavilion-bldgs., Lord-st., Southport.

AYGEE



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Alsager U.D.C.—Erection of 70 houses and site works at Close-la. housing site. G. F. Taylor, E. & S., 3, Lawton-rd., Alsager, Stoke-on-Trent. Dep. £2 2s.

***Worcs C.C.**—First portion of new College of Further Education. E. C. Harris & Partners, chartered quantity surveyors, 3, Bedford-sq., London, W.C.1. Dep. £2 2s.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

APRIL 18.

Marshland R.D.C.—External painting of 250 council houses. J. T. Dewhurst, Housing Surveyor, Council Offices.

APRIL 19.

North Kesteven R.D.C.—External painting of 60 aluminium bungalows in four parishes. Mr. J. Chadwick, Surveyor, 31, Clasketgate, Lincoln. Dep. £1 1s.

MAY 7.

Hoole U.D.C.—Exterior painting of 138 houses. Surveyor to the Council.

ROADS, SEWERAGE AND WATER WORKS

APRIL 23.

Portsmouth T.C.—Surface dressing of about 200,000 sq. yds. of carriageway. City E., Council-chbrs., 1, Clarence-parade, Portsmouth.

APRIL 30.

Wokingham R.D.C.—Finchhampstead sewerage and sewage disposal scheme. Edwin A. Hoskins, Engineer, Council Offices, Shute End, Wokingham, Berks. Dep. £2 2s.

Wrexham B.C.—24,000 sq. yds. of carriageway, etc., at Queen's Park housing estate. J. M. Davies, E. & S., "Bodhyfryd," 31, Chester-st., Wrexham. Dep. £2 2s.

MAY 1.

Gower R.D.C.—Construction of a covered r.c. reservoir of 500,000 galls. capacity at Cefn Bryn, nr. Penmaen, Gower. Henry Davies, A.M.I.C.E., M.I.Mun.E., E. & S., Parc Estate, Upper Killay, Swansea. Dep. £5 5s.

GENERAL BUILDING WORK (LONDON)

Bromley.—ALTERATIONS AND ADDITIONS.—Ind, Coope & Allsop, Ltd., Victoria House, Vernon-pl., W.C.2, propose alterations and additions to the Swan and Mitre public-house, High-st. The architects are Lauchlan, Middleton & Scott, A. & L.R.I.B.A, 19b, Central-parade, Orpington, Kent.

Camberwell.—REPAIRS.—London Essence Co., Ltd., propose to carry out repairs at 154-176, Albany-rd., S.E.5. Architect is R. A. MacDougall, 55d, Great-coat-pl., S.W.1.

Dollis Hill.—EXTENSIONS.—The Governors of King Edward's Hospital Fund propose erection of new nurses' quarters, etc., at St. Andrew's Hospital, N.W.2. Est. cost, £40,000. Architect is H. H. Clark, F.R.I.B.A., 129, Mount-st., Berkeley-sq., W.1.

Edmonton.—OFFICES.—M.K. Electrics, Ltd., propose to rebuild their offices and erect new canteen and kitchen at Genista-rd., N.18. Architects are Fuller Hall & Foulsham, 212, High Holborn, W.C.1.

Hammersmith.—ALTERATIONS AND ADDITIONS.—Story & Co., Ltd., 49, Kensington High-st., W.8, propose to make alterations and additions to their premises at King-st., W.6. Plans have been prepared by Gerald Eve & Co., 6, Queen-st., Mayfair, W.1.

Islington.—REINSTATEMENT.—Plans have been prepared by Herbert L. Smith, L.R.I.B.A., 18a, St James's-pl., S.W.1, for reinstatement of premises at 49-51, East-rd., N.1, for Sunmill Food Products, Ltd., 4, Vestry-st., N.1.

Lambeth.—FLATS.—Plans for 42 flats at Wyvil-rd. prepared by G. Grey Wornum, F.R.I.B.A. 19, Queen Anne's Gate, S.W.1, have been approved by B.C.

Lewisham.—EXTENSION.—Mr. G. T. Harman, F.R.I.B.A., 90a, Lewisham High-st., S.E.13, has applied to build additional storey to existing food store at Messrs. Cave Austin & Co.'s premises, Eastdown Park.

Lewisham.—LAUNDRY.—L.C.C. have granted application by Messrs. Armstrong & MacManus, FF.R.I.B.A., 19, Manchester-sq., W.1. to erect two-storey laundry and meeting-room in Merton-pl.

Lewisham.—DWELLINGS.—Messrs. Richardson & Houfe, FF.R.I.B.A., 31, Old Burlington-st., W.1, are the architects for 32 flats and 70 maisonettes to be erected on the Paragon-pl. housing scheme.

Oxford-st.—SHOP AND OFFICES.—Ronald Ward & Partners, 33, St. George's-dr., S.W.1, are the architects for a five-storey block of offices and shops at 219, Oxford-st.

Paddington.—FLATS.—L.C.C. have granted stage II approval in respect of five blocks of flats at Fulham-pl. Plans by Borough Architect.

Paddington.—FLATS.—L.C.C. have approved plans prepared by Borough Architect for 26 flats at St. Philip's-pl.

St. Pancras.—FLATS.—T. Sibthorp, F.R.I.B.A., 27, Grosvenor-pl., S.W., is architect for 44 flats at Willingham-ter. for B.C. Est. cost, £124,600.

"THE BUILDER" PRICES

BUILDING MATERIALS AND COMPONENTS

The Minister of Works has authorised the following price increases of building materials and components :—

Cement, 2s. per ton for ordinary Portland and rapid hardening cement, operating as from March 29. Cast-iron baths, 2½ per cent. in maximum selling prices, March 15. Sanitary fireclay ware, 7½ per cent. in the overall maximum selling prices, March 24. Roofing felts and dampcourses, 5 per cent. in the maximum selling prices of roofing felts and dampcourses made to British Standard specifications by members of the Association of British Roofing Felt Manufacturers, March 27.

NON-FERROUS METALS

The Ministry of Supply has announced that from April 1, the prices of copper, lead and zinc, as sold by the Directorate of Non-Ferrous Metals, was increased as follows:—

	*New price.**	*Old price.*
Electrolytic copper	£210	£202
Good soft pig lead	£160	£136
Good ordinary brand zinc ...	£160	£151

* Per long ton, delivered buyers' premises.

Discounts and premiums, and charges for forward delivery (where applicable) remain unchanged. The Ministry's buying price for rough copper is also unchanged.

Following the increases in the controlled prices of copper and zinc which came into effect on April 1, The Brass and Copper Tube Association announce that the basis prices of tubes are increased forthwith as follows:—

	Increased by	*Basis price*
Copper tubes	1d.	24½d. per lb.
Brass tubes	½d.	22½d. ,,
Copper-nickel tubes 70/30	½d.	30½d. ,,
Other alloys	Prices on application	

The Minister of Supply has made a new Order bringing the maximum prices of non-ferrous scrap into line with the new selling prices of virgin copper, lead and zinc. The Order—The Non-Ferrous Metals Prices (No. 3) Order S.I., 1951, No. 550—came into operation on Wednesday, April 4.

LEAD AND LEAD PRODUCTS

Following the increase to £160 per ton in the controlled price of lead Associated Lead Manufacturers, Ltd., have issued the following new basis prices of their lead products, effective from April 2.

	To-day's basis price per ton £ s.
Genuine English dry white lead (basis in 1 x 8 cwt. cask)	185 0
Genuine ground English white lead (basis in 1 x 5 cwt. cask)	201 10
Genuine refined English red lead (basis in 1 x 5 cwt. cask)	178 10
Genuine English powdered litharge (basis in 1 x 5 cwt. cask)	178 10
Genuine refined English red lead ground in oil (basis in 1 x 5 cwt. cask)	199 0
English sheet lead (basis for 2-ton lots) ...	181 10
English lead pipe (basis for 2-ton lots) ...	182 15
English lead shot (basis for 1-ton lots) ...	188 5

The above prices are subject to withdrawal and alteration without notice.

BATH AND PORTLAND STONE

The Bath and Portland Stone Firms, Ltd., inform us that from April 2, ex quarry prices for Bath, Portland, Doulting and Beer block stone have been increased by 4d. per ft. cube. Prices will in future apply to Portland stone of 20 ft. average and other stones of 25 ft. average.

St. Pancras. — FLATS. — Norman & Dawbarn, F.R.I.B.A., 5, Gower-st., are architects for 34 flats at St. Pancras-way for B.C. Est. cost, £86,350.

Southwark.—OFFICES.—The Fortress Property Co., Ltd., 6, Duke-st., St. James's, S.W.1, is to erect a block of multi-storey offices on a site in Great Guildford-st., Sumner-st., Canvey-st and at Zoar-st., S.E.1. Est. cost, £500,000. Plans by W. Curtis Green, R.A., Son & Lloyd, 5, Pickering-pl., S.W.1.

Stoke Newington.—APPOINTMENT.—B.C. have approved appointment of E. C. Harris & Partners, 3, Bedford-sq., W.C.1, quantity surveyors for Portland-rise housing scheme.

Stoke Newington.—FLATS.—Revised scheme prepared by Howes & Jackman, FF.R.I.B.A., 1, Verulam-bldgs., Gray's Inn, W.C.1, for 46 flats at Manor-rd. has been approved by B.C.

Stoke Newington.—HOUSING SCHEME.—Howes & Jackman, FF.R.I.B.A., 1, Verulam-bldgs., Gray's Inn, W.C.1, have prepared plans for housing scheme at Portland-rise.

Surbiton.—OFFICES.—P. J. B. Harland, F.R.I.B.A., 23, Dorset-st., W.1, is the architect for proposed offices at 187-195, Ewell-rd. for occupation by various Government departments.

Wembley. — FACTORY EXTENSION. — The British Oxygen Co., Ltd., propose to extend their factory at Carlton-ave. East. Plans by their own construction dept.

Wembley.—SCHOOL.—Messrs. Nicholas & Dixon-Spain, FF.R.I.B.A., 19, Hanover-sq., W.1, have applied for planning permission to erect a Catholic secondary school, Donnington-rd., junction with Woodcock-hill.

Wembley.—FLATS.—Borough Engineer & Surveyor is to prepare a revised scheme for the development of a site in Buck-la., Kingsbury. This provides for 56 flats.

(PROVINCIAL)

Alston.—R.D.C. to invite tenders for eight houses at Nenthead. Architects, Graham & Roy, 6, Paternoster-row, Carlisle.

Bilston.—T.C. approved erection of 56 houses at Stowlawn site. Architects, McEwan & Fillmore, 318, Hamstead-rd., Handsworth, Birmingham.

Birmingham.—E.C. propose two new primary schools at Rednal-rd., Northfield (Phase 1 in 1951 programme). H. J. Manzoni, City E.—T.C. approved expenditure of £29,050 for erection of sub-div. police station and two houses at Packington-av., Shard End.

Boldon (Co. Durham).—Ministry of Local Government and Planning has approved U.D.C. Surveyor's layout plans for 142 houses at West Boldon.

Bootle.—B.C. approved layout for 276 dwellings at Balliol-, Stanley-, Merton-, and Hawthorne-rds., in three stages.

Carnforth.—U.D.C. approved two-storey telephone exchange at Lancaster-rd. for G.P.O.

Chester-le-Street.—R.D.C. has been asked to build 200 houses for miners at Beamish Mary, Handon Hold and Pelton collieries. Council is also to carry out a similar scheme for Kibblesworth Colliery.

Chichester.—A factory and offices, etc., are to be built for Shippam, Ltd., preserved food manufacturers, East Walls, Chichester, at a cost of over £100,000. Architects, Pite, Son & Fairweather, 6, Queen Anne's-gate, S.W.1.

Clayton-le-Moors.—U.D.C. propose further 18 houses at Field Bottoms estate. Architect, Frank Bradley, A.R.I.B.A., 4, Wood-st., Bolton.

Cumberland.—C.C. to provide special school for subnormal children at Ingwell Special School, Whitehaven (stage 1, £13,600). J. H. Haughan, Cty. A.

Darlaston.—U.D.C. approved first stage of scheme for 22 houses and six blocks of flats at Catherine's Cross.

Darlington.—T.C. to build 76 houses. Plans by Boro' A., E. A. Tornbohm.

Derbys.—C.C. approved preliminary plans for new jnr. school at Alfreton.—Site to be acquired at Ripley, for Cty. Jnr. & Inf. Sch.—Working drawings approved for proposed Kilburn Cty. Inf. School.

Durham.—Cty. Ed. Com. is to build a new grammar school at Consett. Cty. A., G. R. Clayton, Court-la., Durham.

Durham.—J. H. Napper, 56, Eldon-pl., Newcastle-upon-Tyne, is architect for a Board of Trade factory at West Stanley.—Cty. Ed. Com. to build new school at Leadgate. Plans by Cty. A., G. K. Clayton, Court-la., Durham.

Durham.—C.C. considering erection of nursery school on Green-la. housing site, Barnard Castle.

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OUR NEW SUPER-HARD FLOORING TILES NOW SPECIFIED BY LEADING ARCHITECTS

Hebburn-on-Tyne.—U.D.C. is seeking sanction to borrow £35,176 for 20 houses and four aged persons' bungalows at Mill-la., and £37,724 for 30 houses by direct labour in Mill-la.

Hereford.—T.C. approved plans by M.W. for a new abattoir.

Hereford.—Skan, Taylor & Co., Ltd., Havana House, Northwick-st., Worcester, propose to build a warehouse in Derrington-st. The architects are Scriven, Powell & James, Cathedral-chbrs., King-st., Hereford.

Hull.—Large blocks of offices, factory, etc., are to be erected at Dansom-la., for Reckitt & Colman, Ltd., to replace war-damaged premises. Architects, Yates, Cook & Darbyshire, 43, Great Marlborough-st., W.1.

Liverpool.—Reg. Hospital Brd. propose extensions to "Greaves Hall," Banks, to accommodate 1,000 mental patients. Architect to Brd., T. N. Mitchell, Alder Hey Hospital, Liverpool.

Newcastle-upon-Tyne.—Housing Com. to build 78 more houses on Montague estate. Plans by Cty. A., G. Kenyon, 18, Cloth-market, Newcastle.

Newthorpe (Notts).—N.C.B. (East Midlands Div.), 18, Milton-st., Nottingham, to build new pithead baths, etc., at Moorgreen and Radford Collieries. Plans by Div. Architect, H. S. Barnett, L.R.I.B.A.

North Riding.—Ed. Com. propose to build county college at Richmond. Plans by D. W. Dickenson, Cty. A., Cty. Hall, Northallerton.

Plymouth.—New premises, Stonehouse, for Service & Co., Ltd. Plans by Body, Son & Finney, 22, Lockyer-st., Plymouth.

Plymouth.—E.C. received approval for new Lipson prim. sch. in 1951-2 programme. Architects, Louis de Soissons & Partners, 11, The Cres., Plymouth.

Pontypridd.—Nat. Miners' Welfare Joint Council to build new pithead baths, etc., at Tymawr Colliery. Plans by Div. Architect, W. Traylor, F.R.I.B.A., South-Western Div., Cambrian-bldgs., Mount Stuart-sq., Cardiff.

Radcliffe.—New Cty. Prim. School proposed by Lancs. E.C., at £84,000.

Richmond (Yorks).—R.D.C. to build 28 houses at Catterick Camp. Architect, N. Dent, Fingle-st. Chbrs., Richmond, Yorks.

Rotherham.—B.C. to grant licence to N.C.B. for two blocks of flats at Erskine-rd.—B.C. seeks £11,600 for additional hutted accommodation at Spurley Hey Sec. School (starting date, May 1).

Southampton.—War-damage repairs, etc., are to be carried out to Nazareth House Children's Home, Hill-la. Architect, W. C. Mangam, L.R.I.B.A., 2, Ribblesdale-pl., Preston, Lancs.—M.E. has approved inclusion in 1951-2 programme of new Rossington-av. inf. sch., to cost £79,000. Architect is H. V. Lobb, F.R.I.B.A., 20, Gower-st., W.C.1.—Brown & Harrison's Dairies, Ltd., propose to extend their processing dept., etc., Broadlands-rd. Plans by Newby Vincent & Partners, 24, The Avenue, Southampton.

Southampton.—B.C. has approved erection of 94 houses, etc., at Bitterne Manor, for Swaythling Housing Society, Ltd. Architects, Collins & Calton, 32, Carlton-cres., Southampton.—M.E. has approved proposed repairs, etc., at Taunton's Sch., at about £25,000, for E.C. Architects, Fowler & Grove, AA.R.I.B.A., 41, Portland-ter., Southampton.—S. Rowland Pierce, F.R.I.B.A., 14, Chepstow-pl., W.2, is co-ordinating architect for redevelopment of war-damaged areas, Above Bar-st., etc., for B.C.

South Shields.—Housing Com. to ask T.C. to approve erection of 51 flats in Wellington-st. Boro' E., John Reid, Town Hall.

Standish.—U.D.C. seek loans of £27,240 and £8,900 for 20 houses and eight Gregory type flats at Grove-la. site.

Stanley.—U.D.C. have approved layout plans for 57 houses and 16 old people's cottages. Plans by the surveyor, J. R. Heslop, surveyor, Council Offices, Stanley, Co. Durham.

Stourbridge.—T.C. propose six shops with living accommodation, at Norton estate.

Sunderland.—T.C. recommended by Welfare Com. to erect old people's hostel at Pennywell, at £30,000. Boro' A., H. C. Bishop, Grange House, Stockton-rd., Sunderland.

Sutton Coldfield.—B.C. approved plans by Boro' S. for block of shops, flats and houses off Rectory-rd., Falcon Lodge estate.

Swindon.—Oxford Reg. Hospital Brd. has approved expenditure of £100,000 for proposed new hospital, of which the first stage will comprise casualty, accident, orthopædic and pathological departments. Architect, Alexander Gray, F.R.I.B.A., (W. H. Watkins, Gray & Partners), 19, Grosvenor-pl., S.W.1.

Warwickshire.—M.E. approved E.C.'s 1951-2 programme:—Warwick Oken Cty. Sec. School (£146,640); Rugby, Overslade C. of E. Sec. (Phase 1) (£103,800); adaptations at Exhall Grange Special School (£8,900); Solihull, Shirley Heath Cty. Jnr. School (£74,000); Nuneaton, St. Joseph's R.C. Sec. (Phase 1) (£53,900); Leamington, Cashmore Cty. Jnr. (£50,000); Sutton Coldfield, Falcon Lodge Cty. Jnr. (£50,000).

Reserve list:—Nuneaton, Caldwell Cty. Jnr. (£50,000); Rugby, Fareham Cty. Inf. (£37,000); Solihull, Lyndon Cty. Sec. (£134,640); Nuneaton College of Further Education (2nd inst.) (£200,000); Leamington, Mid. Warwickshire College of Further Education (workshops) (£60,000). Cty. A., W. Elkins.

West Riding.—C.C. approved completion of following schools at Ecclesfield:—Monteney Inf. (£15,000); Jnr. (£20,000); Mansel Infants (£15,000).

TENDERS

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government Departments.*

Accrington.—Phase 1 of college of further education, for Lancs E.C.: *J. Gerrard & Sons, Ltd., Swinton, nr. Manchester £101,740.

Adlington.—27 houses for U.D.C.: *G. Cattersall & Sons, Bolton-rd., Adlington, £31,949.

Belfast.—156 houses and 24 flats on the Flush Park estate. J. W. Adamson, A.R.I.B.A., A.M.T.P.I., housing architect, 94, Chichester-st. Quantities by Vincent B. Evans, A.R.I.C.S., Provincial Bank-chbrs., Bradbury-pl.: *Hammond & Waddell, Ltd., Ladas-dr., Belfast, £219,926.

Belfast.—88 flats on the Skegoneill-av. estate. J. W. Adamson, A.R.I.B.A., A.M.T.P.I., housing architect, 94, Chichester-st. Quantities by W. H. Stephens & Sons, Donegall-sq.: *H. & J. Martin, Ltd., 163, Ormeau-rd., Belfast, £127,990.

Belfast.—32 houses on the Donegall Park-av. estate. J. W. Adamson, A.R.I.B.A., A.M.T.P.I., housing architect, 94, Chichester-st. Quantities by Vincent B. Evans, A.R.I.C.S., Provincial Bank-chbrs., Bradbury-pl.: *C. W. Spence, Lislea-dr., Belfast, £45,630.

Berwick-on-Tweed.—Extensions to the telephone exchange: *J. H. Lillie & Sons, Coxens-la., Berwick.

Birkenhead—Completion of the superstructure of the new Technical College, for E.C.: ‡Lloyd & Cross Ltd., Birkenhead, £538,000.

Blaydon-on-Tyne.—26 houses at Winlaton, for U.D.C.: *Direct Labour, £32,586.

Burnley.—Superstructure of Ivy Bank high school, for E.C.: *Caton & Duckworth, Ltd., Blackburn.

Cardiff.—New Maternity Department, Cardiff Royal Infirmary, for United Cardiff Hospitals Board. Sir Percy Thomas & Son, PP. & A.R.I.B.A., architects, 10, Cathedral-rd., Cardiff: *William Cowlin & Son, Ltd., Stratton-st., Bristol. Est. cost, £50,000.

Carlton.—18 pairs of houses at Fraser-rd. and 3 pairs at Valley-rd., for U.D.C. J. R. Campbell, M.I.Mun.E., E. & S. Quantities by H. T. Turner, F.R.I.C.S.: *M. D. Sweeney-Palmer, Ltd., Beechdale-rd., Aspley, Nottingham. £53,471 and £8,808 (subject to M.L.G. & P. approval).

Connah's Quay (Flintshire).—(1) Foundations, etc., and (2) structural steelwork for new generating station for British Electricity Authority (Merseyside and North Wales Division), Liverpool. L. G. Mouchel & Partners, consulting civil engineers, 38, Victoria-st., S.W.1: (1) *Yorkshire Hennibique Contracting Co., Ltd., Kirkstall, Leeds, £266,105; (2) *Francis Morton & Co., Ltd., Hamilton Iron Works, Liverpool, £280,360.

Coventry.—New Coundon Court primary school, for E.C. W. S. Hattrell & Partners, architects, 1, Queen's-rd.: *H. Clarke & Sons, Ltd., 48, Coronation-rd., £53,959.

Coventry.—New Brookside-av. primary school, for E.C. D. E. E. Gibson, A.R.I.B.A., City Architect, 1a., Warwick-row: *E. Harris & Son (Coventry), Ltd., 50, Cope-st., £95,769.

Coventry.—1,049 houses, flats and maisonettes, at Tile Hood Neighbourhood Unit (Northern Section), for B.C. D. E. E. Gibson, A.R.I.B.A., City Architect, 1a, Warwick-row: *George Wimpey & Co., Ltd., Hammersmith-gr., W.6. £1,182,841.

East Grinstead.—(a) Two blocks of three houses and one pair of houses; (b) one block of four shops with living accommodation over and a block of 10 garages and approach road at Stonequarry estate (stage 3), for U.D.C.:—

Y. J. Lovell & Son, Ltd.	£26,590
Richard Cook & Son (Crawley), Ltd. ...	26,166
S. D. Chapman, Ltd.	24,407

Essex.—New Stanford-le-Hope secondary school of 600 places, for E.C. Gerald Lacoste, A.R.I.B.A., architect, 39, Gordon-sq., W.C.1, in conjunction with H. Conolly, F.R.I.B.A., County Offices, Chelmsford: *E. H. Smith (Croydon), Ltd., 48, Wellesley-rd., Croydon, £150,235.

Gateshead.—115 houses for corporation: *J. Clark & Son, Seaham, Seaham Harbour, Co. Durham.

Gosforth (Northumberland).—Block of flats in Graham Park-rd., for U.D.C. Clifford Wyld, Surveyor: *Cussins (Contractors), Ltd., Moor Court, Gosforth (in place of tender withdrawn).

Grantham.—Extension to factory at Invicta Works, for Aveling-Barford, Ltd. Building: *W. Foster & Sons, 41, Castle-gate; sheeting: *Arthur Sydall (Grantham), Ltd., Station-rd.; steel and heating plant: *Sidney Raines, Ltd., Ings-rd., Wakefield; glazing: *Mellowes & Co., Ltd., Corporation-st., Sheffield.

Hebburn.—50 houses for U.D.C. Surveyor, H. C. Bestow, Council Offices Hebburn, Co. Durham: *Direct Labour.

Houghton-le-Spring.—74 houses for U.D.C. Surveyor, W. H. Smith, Council Offices, Church-st., Houghton-le-Spring: *Direct Labour.

Hull.—Substructure, etc., for new pumping station, West Hull and Haltemprice main drainage scheme, for Hull T.C. and Haltemprice U.D.C. Combined Authority. W. Morris, O.B.E., M.I.C.E., City Engineer, Hull. R. B. Heseltine, A.M.I.C.E., Surveyor, Haltemprice: *Earth & General Contracts, Ltd., 4, Curzon-pl., W.1. £375,654.

Lancs.—Works for E.C.:—Erection of Maghull Ormonde-dr. secondary modern school: *Henry Boot & Sons, Ltd., Liverpool, £178,248; erection of Litherland St. Wilfred's R.C. secondary modern school: *Wm. Hall & Sons, Ltd., Liverpool, £248,785; erection of Widnes Fairfield secondary modern school: *J. Gerrard & Son, Ltd., Swinton, nr. Manchester, £67,600; erection of Darwen Chapels nursery school: *Wm. Knowles, Ltd., Darwen, £13,748; erection of Leigh Mather-la. nursery school: *Alex Wigan & Sons, Ltd., Ince-in-Makerfield, £14,000; erection of Swinton and Pendlebury nursery school: *P. Hamer, Ltd., Swinton, nr. Manchester, £15,063; additional classroom accommodation at Littleborough Smithy Bridge county school: *J. A. Mills & Sons, Littleborough; primary schools at Middleton Bowlee and Kirkby estates: ‡Bristol Aeroplane Co. (Housing), Ltd., Weston-super-Mare.

Leeds.—Works for T.C. R. A. H. Livett, O.B.E., A.R.I.B.A., City Architect. 170 dwellings, Belle Isle: *N. B. Bell & Co., Ltd., Frankland-ter., Roundhay-rd., Leeds 7, £213,932; 36 dwellings, Saxton-rd., Moortown: *West & Sons (Leeds), Ltd., 34, Lincoln-rd., Leeds 9, £44,529; 12 dwellings at Lingfield-view, Moortown: *W. J. Simms, Sons & Cooke, Ltd., Haydn-rd., Sherwood, Nottingham, £15,717; 60 dwellings at Rosgill-dr., Seacroft: *N. B. Bell & Co., Ltd., Leeds.

Liverpool.—Works for City Council:—Four police houses at Broadgreen-rd.: *Mc K. S. Contractors, Ltd., Almonds-gr., West Derby, Liverpool 12, £7,462; 15 police houses at various sites: *Cregreen & Sons, Ltd., Longmoor-gr., Aintree, Liverpool 9, £25,831; 13 police houses at various sites: *Scarisbrick Contractors & Haulage Co., Ltd., 81, Dale-st., Liverpool 2, £22,455; six flats at Derwent-sq.: *Huntington Building & Development Co., 86, Low-hill, Liverpool 6, £9,532 (all subject to approval of Secretary of State for Home Dept.).

Two houses at Deane-rd., and two at Cameron-st.: *Willcock Bros., 42, Pleasant-st., Liverpool 3, £6,836; 17 houses at various sites: *Scarisbrick Contractors & Haulage Co., Ltd., 81, Dale-st., Liverpool 2, £30,157; one house at Bradfield-st., and six at Needham-rd.: *G. H. Smith, Finvoy-rd., Liverpool 13, £12,039; eight houses at Loudon-gr., and six at Croylands-st.: *Vallance & Hughes, 6a, Rose-vale, Liverpool 5, £23,310; 10 houses at Wynnstay-st., and two at High Park-st.: *Southend Builders & Decorators (Liverpool), Ltd., Greig-st, Liverpool 8, £20,400; four houses at Croylands-st.: *C. Heskin (Builders), Ltd., 310, West Derby-rd., Liverpool 13, £5,676; 10 houses at Speke Hall-rd., Hillfoot-av.: *Unit Construction Co., Ltd., Bentham-dr., Liverpool 16, £16,200; 96 flats at Speke estate: *Unit Construction Co., Ltd., £173,976 (subject to approval of M.L.G.&P.).

London.—Rebuilding shop, showroom and offices at 108, New Bond-st., W.1, for Posner Gowns, Ltd., 1a, Grafton-st., W.1. Architects, Cook & Addams, 1, Gower-st., W.1: *J. W. Ashdown, Ltd., 21, Bessonst., S.E.14.

¶London (Admiralty).—Particulars of contracts placed by Civil Engineer-in-Chief's Dept., Admiralty.

Elgin: Housing estate, erection of 76 ratings houses, John Bisset & Sons, Ltd., Back Hilton-rd., Aberdeen.

Cambridge: Erection, etc., of hutting, Johnson & Bailey, Ltd., 51 & 51a, Norfolk-st., Cambridge.

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¶London (Air Ministry).—Contracts to value of £500 or over for week ended March 24:—

Building work: Chas. R. Price, Doncaster; R. M. Phillips & Son, Ltd., Brigg, Lincs; A. Richmond & Sons, Retford, Notts; Geo. Wimpey & Co., Ltd., London, W.6; Rice & Son, Ltd., Margate.

Resurfacing work: The Limmer & Trinidad Lake Asphalt Co., Ltd., Glasgow, C2; W. & J. Glossop, Ltd., London, W.6. *General maintenance work:* Walter Lawrence & Son, Ltd., Swaffham, Norfolk; Downing Rudman & Bent, Ltd., Chippenham, Wilts.

Painting work: Oates Bros., Shipley, Yorks; James Laidlaw & Sons, Ltd., Rutherglen. *Concrete runway work:* M. J. Gleeson (Contractors), Ltd., North Cheam, Surrey. *Concrete platform for airfield:* John Mowlem & Co., Ltd., London, S.W.1.

¶London (M.O.W.).—Contracts placed by M.O.W. during week ended March 17:—

London: Caxton House (West Block), Tothill-st., S.W.1, Internal painting, C. & T. Painters, Ltd., Mordaunt-rd., Harlesden, N.W.10; Queen Anne's-chbrs., Tothill-st., S.W.1, Internal painting, C. & T. Painters, Ltd., Mordaunt-rd., Harlesden, N.W.10. *Cumberland:* Min. Agric. & Fisheries, Outstation Laboratory, Cragg Farm, Ravenglass, Extensions, Samuel Sheldon & Sons, Lapstone-rd., Millom. *Gloucestershire:* Central Telephone Exchange, Kingst., Bristol, Extensions and alterations, Hayes & Sons, Ltd., Stork House, Hotwells, Bristol.

Kent: M.N.I. Premises & Min. of Lab., Lawfield-rd., Dartford, Erection of T.O.B. & alterations, H. Richardson & Sons, Ltd., Ronald Works, Slades Green, Erith. *Lancashire:* Employment Exchange, Brunswick-st., Stretford, Alterations and additions, Jonathan Partington, Ltd., Middleton Junction, nr. Manchester. *Lincolnshire:* Longdales-rd., Lincoln, Erection of welfare block, W. & J. Simons, Ltd., Gordon-rd., West Bridgford, Nottingham; Post Office, garage and workshop Buildings, Longdale-rd., Lincoln, Alterations, Hamilton Builders (Lincoln), Ltd., Maxwell House, Bunkers Hill, Wragby-rd., Lincoln. *Northampton:* Gladstone-rd., Northampton, Erection of T.O.B., Chowns, Ltd., 63, Edinburgh-rd., Nottingham.

Surrey: Ordnance Survey Office, Leatherhead-rd., Chessington, Extension to spur of north block, Chas. Sayer & Son (Mitcham), 335, London-rd., Mitcham. *Warwickshire:* P.O. Supplies Depot, Fordrough-la., Birmingham, Interior painting and cleaning, B. T. Felton & Sons, Ltd., 345, Chester-rd., Sutton Coldfield; Poplar-rd., Sparkhill, Birmingham, Erection of two-storey office building, Bragg Bros., Ltd., Church Hill-rd., Solihull. *Yorkshire:* Post Office Automatic Telephone Exchange, Gt. North-st., Cantley, Alterations and extensions, J. Dixon (Doncaster), Ltd., Greenfield-la., Balby, Doncaster.

¶London (M.O.W.).—Contracts placed by M.O.W. during week ended March 24.

London: King Edward-bldg, E.C.1, alterations to refreshment club, Thomas Bates & Son, Ltd., The Old Brickworks, Church-rd., Harold Wood, Romford, Essex; National Gallery, W.C.2, alterations and improvements, Walter Lilly & Co., Ltd., Orchard Works, St. Ann's-st., London, S.W.1; Berkeley-sq. House, S.W.1, construction of canteen, Dearsley & Carter, Ltd., 91, King-st., Hammersmith.

Gloucestershire: Benhall Farm, Cheltenham, alterations to blocks 4, 5 and 6, C. H. Pearce & Sons (Contractors), Ltd., Westbury Hill, Westbury-on-Trym, Bristol. *Yorkshire:* Min. Agric. and Fisheries, Lawnswood, Leeds, formation of laboratories, Wm. Thompson & Sons, 19, Sheepscar-st. North, Leeds.

¶London (War Dept.).—Contracts placed by W.D. during week ended March 24:—

Berks: Miscellaneous, W. & A. Collisson, Banbury; H. J. Spackman & Sons, Ltd., Swindon. *Glos.:* Miscellaneous, G. W. Enoch, Cheltenham. *Norfolk:* Miscellaneous, Oliver Staines & Son, Swaffham.

Essex: Building (concrete), E. A. Caryn & Son, Hornchurch; Gee Walker & Slater, Ltd., London, W.1. *Hants:* Building, Walker (Tooting), Ltd., Epsom. *Midlothian:* Building (concrete), John Wight & Co. (Edinburgh), Ltd., Edinburgh.

Dumbartonshire: Building (concrete), Melville, Dundas & Whitson, Ltd., Glasgow. *Midlothian:* Miscellaneous, Edinburgh Building Contractors, Ltd., Edinburgh. *Notts:* Miscellaneous, Hugh Cox & Son, Ltd., Heanor. *Yorks:* Miscellaneous, J. W. Maw & Sons, Ltd., York. *Pembrokeshire:* Roadwork, Constable Hart & Co., Ltd., Richmond, Surrey. *Cheshire:* Building alterations, Worthingtons (Contractors), Ltd., Liverpool.

Warwickshire: Flooring work, Norman W. Dunn & Co., Ltd., Wellesbourne. *Herefordshire:* Painting, Arthur Hogg, Ltd., Crumpsall, Manchester. *Salop:* Miscellaneous, Bertram E. Pugh & Son (two contracts), Shrewsbury; W. Watkin & Co., Oswestry. *Worcestershire:* Miscellaneous, T. Oliver (Builders), Ltd., Worcester.

Luton.—Control tower, municipal airport, for B.C. F. Oliver, A.M.I.C.E., B.E.:—

C. Miskin & Sons, Ltd., Romeland, St. Albans, Herts	£6,949
J. Jarvis & Sons, Ltd., Vauxhall Motors, Ltd., Kimpton-rd., Luton	6,500
F. Hickman & Co., Ltd., Caxton-st., Market Harborough	6,430
T. & E. Neville, Ltd., 30, Castle-st., Luton	6,396
C. G. Claydon, Ltd., 236, Old Bedford-rd., Luton	6,371
Seaward Bros., Ltd., 1-17, Neville-rd., Luton	6,272
*C. H. Chaston & Co., Ltd., Essex-rd., Hoddesdon, Herts	6,077
Apthorpe Contractors, Ltd., 4b, Hitchin-rd., Luton	5,626

Manchester.—Works for Regional Hospital

Board:—Conversion of ward A.56 as pathology laboratory: *G. W. Dawson & Co., Lower Crumpsall, Manchester, £20,950; conversion of Ward E.2 at Hope Hospital, Salford, as pathological laboratory: *Dye & Co., Salford, £10,443; central office accommodation at Lancaster Royal Infirmary: *Manor Construction Co., Ltd., Scotland-rd., Carnforth, £6,218; new nurses' dining-room at Accrington Victoria Hospital: *George Welsh & Sons, Ltd., Oswaldtwistle.

Middlesbrough.—66 houses at Berwick Hills, for T.C. J. A. Kenyon, B.E.: *P. Shannon, Middlesbrough (32); *R. H. Bailey & Son, Middlesbrough (34).

Mitcham.—Extension of works and offices for R. J. Hamer & Sons, Ltd., Miles-rd. Hugh Macintosh & Partners, architects, 33, High-st., Croydon: *W. E. Meacham & Son, Ltd., 52, Burlington Newrd., New Malden, Surrey.

Newcastle.—34 houses with roads and sewers at Kenton, for T.C.: *J. H. Fisher & Co., Ltd., Kenton, Newcastle-upon-Tyne, £54,000.

Northallerton.—Two-storey Government office block: *W. Thompson (Contractors), Ltd., 17, North-end, Northallerton. Cost approximately, £40,000.

Northumberland.—Erection of new Longbenton Seaton Burn county modern school, for E.C. W. W. Tasker, County Hall, Newcastle-on-Tyne: *Thomas Clements & Sons, Ltd., Dene Joinery Works, Selborne-gdns., Jesmond, Newcastle-on-Tyne.

Portsmouth.—Alterations and additions to 230-232, London-rd., for G. Hardacre, Ltd., Jolliffe & Partners, architects, 35, Kingston Close-cres.: *Gosport Building Co., Ltd., Henry-st., Gosport, Hants.

Ramsey (Isle of Man).—24 flats and three bungalows at Tower-rd. and Lower Queen's Pier-rd., for Commissioners: *T. Hosker, Ltd., £30,430.

Ringwood and Fordingbridge.—32 houses on the Wessex estate, for R.D.C. Frank Andrews, L.R.I.B.A., architect, 45, High-st., Ringwood: *E. A. C. Britton, Bewley, Hants.

Ringwood and Fordingbridge.—Six dwellings on the Wessex Estate for R.D.C. Frank Andrews, L.R.I.B.A., architect, 45, High-st., Ringwood: *J. H. Turner, 10, Carysfort-rd., Boscombe, Hants.

Rushden.—14 houses at Upper Queen-st., for U.D.C.: *Robert Marriott, Ltd., £19,140 (subject to M.O.L.G. & P. approval).

Seaham.—Erection of 40 houses at Westlea estate, for U.D.C. Surveyor, A. M. Smith: *W. Tomlin & Son, South-cres., Seaham (20); *I. Berriman, Marton-cres., Fence Houses (20).

Shardlow.—28 houses on Wood-rd. site at Chaddesden, for Housing Com.: *A. Parkin, £40,180.

South Shields.—Erection of 124 houses at Simonside, for T.C.: ‡L. W. Evans, Ltd., 18, Norfolk-st., Sunderland.

South Wales.—New pithead baths, lamp cabin, etc., Ffaldau Colliery, for National Miners' Joint Welfare Council. William Traylor, F.R.I.B.A., Divisional Architect, N.C.B., Mount Stuart-sq., Cardiff: *Gee, Walker & Slater, Ltd., Coychurch-rd., Bridgend.

Stalybridge.—Further 40 houses at Buckton Vale estate, for B.C. Architects, Howard & Benson, 88, Mosley-st., Manchester: *J. Ridyard & Sons, Ltd., Railway Sawmills, Ashton-under-Lyne, £48,508.

States of Guernsey.—14 houses at Rue des Grons, St. Martin's. G. Heggs, States Engineer, States Office Annexe: *John C. Nicholls (Guernsey), Ltd., Court-pl., Court-row, St. Peter Port, Guernsey.

Stockton-on-Tees.—Erection of 10 houses in Grange-av. Architect, F. W. Turnbull, White House, Carlton: *Marsh (Builders), Ltd., Bishopton-rd., Stockton-on-Tees.

Stourbridge.—61 houses and 12 bungalows at Hodge Hill estate, Wollescote, for T.C.: *Nathan Hyde (Sedgley), Ltd., £95,406.

Sunderland.—Five shops and flats for corporation: *G. H. Plomper, Ltd., Old Chester-rd., Sunderland. £18,720.

Swansea.—Premises at City Centre, for W. H. Smith & Son, Ltd., Strand House, Portugal-st., W.C.2, and W. E. T. Eynon, 75, Brynymor-rd., Swansea. Cyril A. Hughes, L.R.I.B.A., architect, 51, Walter-rd., Swansea: *Griffith Davies & Co., Ltd., Paxton Yard, Swansea.

Whitley Bay.—12 houses on the Foxhunters' housing site. E. Roberts, Surveyor: *Rockcliffe Building Co., Ltd., 73, Park View, Whitley Bay.

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